The Builder.

No. CCCXXII.

SATURDAY, APRIL 7, 1849.

FROM the letters received during the past week (such a varied budget, that to reply to them satisfactorily would demand an encyclopædic mind, and half a dozen pairs of hands), we select for notice those on two or three subjects of more immediate interest. Prominent amongst these are a pile with reference to our brief remark on galvanized iron, and galvanized tinned iron, in a recent number. As we have before now said, we might commend a man or a material every week for a year, and never extort a single acknowledgment from him or its owner,—they stand too well to care for or need the praise of so small a thunderer,—it is simply their due; they *have* merit, and no thanks to them who observe and admit it. On the other hand, if we but question ever so slightly the infallibility of the man, or express a doubt as to the pre-eminent goodness of the material, a shower of letters forthwith arrives, to prove that although our good opinion is worth nothing, our bad opinion is very differently estimated.

What we said of galvanized iron was comprised in nineteen lines and a half, and was a simple statement of the fact that specimens of the material had been sent to us, which, after two years' use, were full of holes. Now we speak under the mark when we say that we have received, in consequence of these nineteen lines and a half, twenty visits and forty letters! Intentions have been altered, orders suspended: and both the Galvanized Iron Company and the patentee of the Tinned Iron are receiving from different parts of the country constant reference to the paragraph in question.

The majority of the letters are from interested parties, for and against:—from persons engaged in the manufacture or the sale of this material, and from those who consider their interests affected by it. Amongst the former, however, are several, whose testimony in its favour, to the extent of five or six years' knowledge, is entitled to every consideration. It is far from our desire to interfere with the use of the galvanized metal, if it be really a durable material; and we are quite ready to admit that the examples of its failure forwarded to us, if isolated cases, are not to be considered sufficient proof to the contrary. There may have been some peculiarity in the water in each of these cases; and we know very well that under some circumstances even lead is acted on and rapidly destroyed. Dr. Ryan, the professor of chemistry, who has addressed us on the subject, says (as we ourselves have long before this stated):—"I have known cases in which the tubes and lining of leaden cisterns have been acted upon and dissolved by water to such an extent, as to be highly injurious to health, and, in some cases, fatal. Such, also, is the case with copper, under a variety of exposures." There is, in fact, no metal but gold or platina which will resist every action, either of air or water, to which it may possibly be subjected, even in the ordinary uses of life.

The doctor continues (and by giving insertion to this, which is in truth a testimonial, we are shewing conclusively our willingness to give the material fair play)—"Speaking from my own observation of galvanized tinned iron, for now more than six years, I am of opinion that it is as little acted upon by either air or water, under the average of circumstances, as either lead or copper. There are circumstances under which the galvanized tinned iron is not applicable; for instance, when the medium in which it is placed contains acid, or acid vapours, an action takes place which must sooner or later destroy the metal.

Nor is it necessary that such acid or acid vapours be in a free or uncombined state, as by the well-known laws of chemical affinity, zinc will displace certain other bases from their combination with acids. If, for example, a piece of zinc be placed in water containing a salt of either iron, tin, copper, or lead, the zinc is dissolved by substitution, while the metal previously in combination with the acid, and held in solution by the water, is disengaged and precipitated, in most cases, in its metallic state. The applicability of the metal is, however, as easily ascertained as the applicability of any other material, under given circumstances; and it only requires the care and attention which an ordinarily prudent and intelligent person would exercise, and which must be exercised in the use of any other material whatever, to know, whether or not the metal is suitable for the purpose to which he intends to apply it."

We make no comparison between the two materials, the galvanized iron and the galvanized tinned iron, and consider the whole question still an open one with us, leaving the public to decide on the evidence before them.

The destruction of the Olympic Theatre by fire, on the 29th ultimo, has led several correspondents to refer to our repeated remarks on the necessity of commodious and safe means of access and egress in theatres and public places, and the fearfully unsatisfactory condition of many of our theatres in this respect. The wildfire rapidity with which the house was entirely consumed would have given little chance of escape to the audience. Had the fire happened when the house was full instead of previously to the opening of the doors, as was happily the case, the majority must have been destroyed,—literally roasted as they stood.

A survey of the stairs and accesses of our theatres should forthwith be made, and such alterations insisted on as might be found necessary for the safety of the public.

It is to be hoped that the fire may lead to the improvement of a part of the town much requiring it, and that the theatre, if rebuilt, will be placed on another site.

Mr. Smirke's paper of last week, on the relative condition of workmen in the seventeenth century and now, has not escaped commentators out of the class to which it was more immediately addressed. The letters, while setting forth the actual condition of many hundreds—must we not say, thousands—of intelligent artisans, are couched in a tone most honourable to the writers and the body which they represent. Our reference recently to the effect of too much union amongst men and too little union amongst masters, has led one working man, the "Old Mason" to whose lucubrations we have before given publicity, to address to us a letter calling upon the masters to *protect* those men in their employ who refuse to enter into union with others, and not to dismiss them at the dictation of their other men. He says:—

"To illustrate the truth of these remarks:—Some time since a strike took place against Mr. Trego, builder, of Lambeth, in respect of the four o'clock movement, and the members of a society were prohibited from working for him, or to allow those whom he had employed since such strike, to work with them, under a penalty of 5*l*. A mason who was at work at Mr. Trego's after the strike, having been discharged from his employ, applied at a respectable mason's in Pimlico, and obtained employment. He commenced work, by the foreman's directions: after working about an hour or so some of the masons working in the same shop, informed the foreman that he had been previously working for an obnoxious employer: they further stated their determination to strike unless this man was immediately discharged. The consequence was this man was compelled to leave his work, take his tools, and quit the premises at a moment's notice,—and that through the conspiracy of the members of this society. The foreman informed him that it was through no ill-feeling on his part that he was discharged, but that he could not think of keeping him at work and be the cause of all the others leaving their employment. This man, then, must either join a society which is obnoxious to him, and illegally combined against him and others, or he must lose the benefit of his labour, which will be to take away his means of existence. Thus he is deprived of the liberty of an Englishman; he must only work how, when, and where others choose to dictate, and break the laws of his country to fulfil those of their making."

The same writer, a working man be it remembered, says, in another communication on the subject of equality,—"If the liberty that I take encroaches on the liberty of another, it ceases to be true liberty, and wears the aspect of oppression. There is but one method of securing universal liberty, and that is for each individual to be as anxious to promote the welfare of another as his own. We hold this true in theory, but it is a lesson the world has not yet learned to practise. Man is evidently selfish, and if allowed to have the extent of his desires, he often encroaches on the liberties and rights of others. From this we discover the necessity of law and order, without which no man's life or property would be secure. It is for the general good that laws are made and enforced; but the question arises, whether or not one individual should have dominion over many? Are not all men of the same flesh and blood, and ought we not to contend for equality?

"Those who contemplate nature may discover that the universe teems with an infinite variety. If the eye of the mind, assisted by revelation, penetrates the upper regions, powers, excelling in wisdom and authority, are represented to his view. If we descend below ourselves in the scale of creation, as far as naturalists have discovered, the meanest insects seem to have order maintained among them by a few having authority over the many. Respecting governments among men, we are expressly informed, from the highest authority, that the powers that be are ordained of God, and whosoever resisteth the power resisteth the ordinance of God. That man enjoys the truest liberty who willingly and cheerfully submits to the proper performance of his duty, rendering to all their dues,—fear to whom fear, honour to whom honour. Bind such a man with fetters of iron, his mind is still in the enjoyment of liberty."

While we find such opinions as these current amongst our operatives, we need not fear the efforts of evil-disposed agitators.

ON SIR BALTHAZAR GERBIER'S "COUNSEL AND ADVICE TO ALL BUILDERS."*

The small volume of which I am now about to give you some account, possesses very slender claims to literary merit—nor has it much intrinsic professional value; yet it has, I think, still, great claims on our attention, as being among the very earliest of our native literary productions exclusively on the subject of our art.

The earliest edition of Sir Balthazar's Counsel and Advice is 1663. The early date, therefore, of this book gives it a value,—and a stronger interest attaches to it in our eyes, as giving some insight into the practice of architecture at the period of our great master, Sir Christopher Wren. Sir Balthazar was born at Antwerp, in 1592, and was brought up as a miniature painter. He was knighted by Charles I., and was employed by him, in conjunction with Rubens, to negotiate a treaty with Spain; he also resided at Brussels in a diplomatic character. He was subsequently employed as an architect by Lord Craven.

I must not, however, conceal that his biographers give but a sorry account of him. He failed to secure the favour of the court, and was driven to adopt a variety of means of living. It is true he fell upon evil times. The death of Charles I. deprived him of hope at court. He migrated to Surinam, where he was persecuted by the Dutch; and although at the restoration of Charles II. he built triumphal arches in honour of the young monarch, he appears never to have attracted much of the royal favour. He died in 1667. Having said thus much of our author, and having, I trust, prepared you to expect very little of value or novelty in his work, I proceed to fulfil my engagement to give you some account of its contents.

Prefixed to the treatise are no less than forty-one dedications, which, in fact, occupy about half the duodecimo volume. Although seldom, I believe, carried to so ridiculous an extent as in this case, the practice of preluding every literary attempt by these rhetorical invocations, through which it was hoped to win the favour of the great, was one of the literary foibles of that age; but the following observation in Mr. Macaulay's recently published history gives us some clue to the origin of these somewhat fulsome appeals—"The fee paid," he says, "for the dedication of a book was often much larger than the sum which any publisher would give for the copyright. Books were therefore frequently printed merely that they might be dedicated."

The treatise commences by adverting to the author's previous work, which he describes as "a little manual concerning the 3 chief principles of magnificent building—viz., solidity, conveniency, and ornament;" wherein he "notes the incongruities committed by many undertakers of buildings." He points to the Grecians and Romans as the best builders, and urges that men should not be subject to fancies nor "inslaved by weather-cock-like spirits, to make their buildings according unto things *à la mode*. He further condemns the incongruity committed by surveyors, who were minded to show that they were skilled in describing columns, cornishes, and frontispieces, although, for the most part, placed as the wilde Americans are wont to put their pendants at their nostrils."

The author then proceeds to treat more particularly of his advice to all builders. "Whoever," he says, "is disposed to build, ought, in the first place, to make choice of a skilful surveyor, from whose directions the several master workmen may receive instructions by way of draughts, models, and frames." I should here say that the author throughout uses the terms surveyor and architect as perfect synonyms; there is no indication whatever of that distinction which is now, in England at least, universally received. He then adverts to some of the requirements of architects, and especially dwells on the knowledge of perspective as essential; he teaches that the architect should consider the ground whereon the building is to be erected, and then govern himself as the ground will give him leave; Pope has since more elegantly expressed it, "consult the genius of the place." He must place the front of a country house towards the east, "by which means he may shelter his double lodging rooms from the north-west." I cannot say that this piece of instruction is very intelligible. We can hardly regard the north-west as the aspect most to be shunned. The author here adds, what he quaintly calls a *nota bene* to builders—viz., he must cause all the back of his stonework (which stands within the brickwork), to be cut with a rebate 3 inches broader than the breadth of his jambs and cornish, which will hinder the rain from piercing into the inside of the wall, and through the meeting of the brick and stone. He deems it necessary to make a sort of apology for this advice, as implying that "surveyors and master workmen in this refined age which abounds in books, with the portractures of the out and inside of the best buildings, are to seek the first points of their apprentiship; of whom I ask the reason why modern buildings are so exceedingly defective; and whether it is not because many of them have been but apprentices lately, and too soon become journeymen; and that surveyors (who either affect more the building to themselves a strong *purse*, or are blind to the faults which their workmen commit), like careless postillions, hasten with the packet maile to the post-office, be it never so ill-girted, whereby it oft falls in the midway."

The author then advises how to try the capacity of a surveyor. "The readiest way to try him," he says, "is to put him to draw a ground plot in the builder's presence; to make him describe the fittest place for a seat; the ordering of the rooms for summer or winter; to contrive well the staircases, doors, windows, and chimneys,—doors and windows so placed that they may not be inconvenient to the chimneys,—the bedstead place far from the doors and windows, and of a fit distance from chimneys."

He then adverts to the "seelings of rooms," adapting their height to the size, character, and use of the room. A bedchamer of state may be 30 feet wide, 40 feet in length, and 16 or 18 feet high; whereas a closet, 10 feet square, adjacent thereto, if made of the same height, would be "preposterous, and like a barber's comb-case." The dimensions here set down for a state bedchamber seem somewhat extravagant; but it must be remembered that our author's advice is apparently addressed to royal or noble builders; and in the 17th century business was transacted, and morning visitors were received, usually in the bedchamber, a practice which, at the present day, has not fallen altogether into desuetude on the continent.

The author then proceeds to the subject of exterior architecture. He points out the necessity of cornices over doors and windows, to prevent rain from falling on them, which he illustrates in his usual quaint way, by comparing a "cornish" to "the broad brim of the good hat of a traveller in a rainy day."

"The good surveyor," he adds, "will order ornaments to the front of a palace according unto its situation: shun too much carved ornaments on the upright, whereat the southerly windes raise much dust;" also "shun those spectacle-like cant windows which are of glass on all sides, for it may be supposed that the inhabitants of such houses and rooms with cant windows (exposed to the north-west) may well imitate a merry Italian fisher, who in a winter, windy, rainy day, had been stript to his skin, and having nothing left to cover him save his bare net, wherein he was wrapt, put his finger through one of the holes, asking of passengers what weather it was out of doors." It is here to be observed, that at the period when our author wrote, classical architecture, on its revival, was still struggling with the Gothic forms that had prevailed for so many centuries previously. These cant or bow windows were peculiarly characteristic of the Tudor and Elizabethan ages, and so firmly rooted were they in the domestic habits and usages of the time, that the revivers of classical architecture were driven to make many attempts to retain the old favourite form with a new dress; and down to the present day we seem to have remained true to the old spectacle-like cant window of our forefathers, which, whilst it is almost universal in England, can scarcely be met with in modern architecture on the continent.*

Sir Balthazar then proceeds to give us advice of not a very important nature on the subject of balconies, balustrades, and cornishes. He says that the Grecian and Roman surveyors ever made the cornishes and ornaments about the windows of the upper stories to be bigger than those on the lower; and illustrates his remark by a somewhat pedantic reference to Michaelangelo, Raphael d'Urbin, and Albert Durer. He then teaches us as to the proportions of doors and windows. The chambers of a palace, he says, should have the doors wide enough for two to pass at once, and the height to be double the width; all other chamber doors should be convenient for a man of complete stature to pass with his hat on. Windows must be higher than they are wide, because light comes from above, and the middle transome should be above 6 feet from the floor, otherwise the transome would be opposite a man's eye; "hindersome," as he says, "to the free discovery of the country." The leaning-height of a window should be 3½ foot, and not so low that wanton persons may sit on them and break the glass, or that they may show themselves in quirpo to passengers. "A good surveyor," he says, "shuns the ordering of doors with stumbling-block thresholds, though our forefathers affected them, perchance to perpetuate the ancient custom of bridegrooms, who, when formerly at their return from church, did use to lift up their bride, and knock her head against that part of the door, for a remembrance that she was not to passe the threshold of their house without their leave."

Doors, he says, should be on a row, and close to the windows, that when the doors are opened they may serve for screens, and not to convey wind to the chimney.

The hearth of a chimney ought to be level with the floor; and chimney mantles ought to be of stone or marble. It is necessary to cover the top of chimneys to keep out rain and snow; the smoke holes can be very conveniently made on the sides of their heads. Had the knight lived in these times he would doubtless have been very severe, in his quaint way, upon the monstrous fashion of modern chimney-pots.

"Roomes on moist grounds do well to be paved with marble," and "a good surveyor shuns the making of timber partitions on the undermost story." "The good surveyor doth contrive the repartitions of his ground plot so as most of the necessary servants may be lodged in the first ground-story, whereby there will be less disturbance, less danger of fire, and all the family at hand on all occasions." "Finally, he ought from time to time to visit the work to see whether the building be performed according unto his directions and moulds." The author then proceeds to a chapter on clerks of works. "A clarke of the werks," he says, "must be verst in the prices of materials and the rates of all things belonging to a building; know where the best are to be had; provide them to the workmen's hands," and so on, adding that "though nails to some seem not very considerable, yet ought the clarke of the werke to be discrete in the distributing of them to some carpenters whose pockets partake much of the austruche's stomachs." "His eyes must wander about every workman's hands, as on those of the sawyers at their pit so that they waste no more than needs in slabs; on the laborers' hands in the digging of the foundation for the bricklayers, that all the loose earth may be removed and springs observed."

Some of the ordinary duties of a clerk of works are then enumerated; as, that he should prevent bricks being tumbled out of the cart; that he should suffer no sammell bricks to be made use of, and that he should not suffer the bricklayers to lay any foundation except the ground be first rammed, though it seem never so firm. "No great and small stuff," he says, "should be huddled together in the foundation, but all laid down as even as

* Read at a meeting of the Institute of Architects, as mentioned last week. The whole paper will probably be published hereafter in a more complete form.

* Lord Bacon, who wrote somewhat before the date of this book, had none of our author's prejudice against these embowed windows. "I hold them," says he in his well known essay on building, "of good use, for they be pretty retiring places for conference; and besides they keep both the wind and sun off, for that which would strike almost through the room doth scarce pass the window."

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possibly can be, to ram it the better and the more equal, and must be of solid hard stuff with no concavities daubed over with store of mortar," and he adds here in a marginal note that these precautions were observed in building the foundations of Solomon's temple, but he does not give us his authority for this information.

The clerk of works is further to see that the line and plumb rule be often used; that the bricklayers make small scaffling holes, and never suffer them to begin scafflings in the morning, but before leaving of their work; "for if in the morning, he says, "most of them will make it a day for the gathering of nuts."

Then follow some injunctions respecting mortar, that I scarcely need particularise—and the author proceeds to the subject of masonry. The workmen must observe exactly the surveyor's molds, and work close and neat joints, using but little mortar between them, not only because much mortar will be washed away, but that cornishes will also appear like a rank of open teeth; and they must not forget to shore up the middle part of the head of the windows, as well as the sides, to prevent an unequal settling of the work, and, consequently, cracks. There here ensue, for the next thirteen pages, detailed directions for the proportioning of the several orders. The masons "must divide the Tuscan column, or rustick base and capital (which is as much as to say, feet and head) seven times its thickness; the architrave, freeze, and cornish one-fourth-part of the column, with base and capital. If they make the said order without a pedestal, they must divide its whole height into seventeen parts and a half, which (in their vocation phrase) are called *models*, and are divided into twelve equal parts: if they are directed by their surveyor to make them *with* a pedestal, then are they to divide the whole height into twenty-two and one-sixth part, for that the perfect shape of the said order requires a pedestal which must have a third part of the column. It seldom happens that a pedestal is put to the Tuscan order, because (as it represents an atlas, and that no man will take a dwarf to reach to the first story of a building) the said order requires, not to be set as a candlestick on a cubbert; it's as a substantive, that can stand without an adjective." And then our author adds, for he loves a joke, whether in season or out of season, "some Venetian ladies must have their shoppings to stand on, and were they as strong as the Tuscan, they would not need some of their Masaras to lean upon," which no doubt conveyed a hard hit at the luxurious habits of the Venetians, then in the plenitude of their wealth and greatness, but which has lost its point now—the very terms used being obsolete.

The author then proceeds to lay down the proportions of the Doric, Ionic, Corinthian, and Composite orders: the necessity for adhering exactly to these proportions he considers paramount—"For it is a rule as certain," he says, "as that without the same, there cannot be a perfect building made, no more than a man could without good orthographie write true English."

"It is the rule of the ancient masters, whose reliques, to be seen throughout most places of Italy, make many strangers that come their gape so wide as that they need no gags."

The author now enters upon the subject of carpentry. He teaches "That the carpenters should be good husbands in the management of the builder his timber; on the cutting of the scantlings; their sparing to make double mortices which doe but weaken the summers. To lay no gerders which are needless and hindersome to the bording of a room; no summers to be laid except the ends of them are either pitcht, or laid in loam to preserve them from rotting," "and therefore in Italy, France, and Germany, and among the most prudent and solid builders, the free masons, put stone cartouches in the top of the inside walls which are bearers to the summers, as such cartouches are seen in divers churches, and some of them are carved in ornamental figures." He alludes, no doubt, here to the stone corbels upon which we sometimes see the ends of principal timbers resting: an excellent old practice which we in our own days follow, although in a much less picturesque way, by inserting the ends of our timbers into cast-iron shoes projecting from the face of the wall. The utilitarian tendencies of modern practice have been very subversive of the old picturesque ways of our ancestors, whether on costume, furniture, or architecture. An upholsterer now ascertains with precision the size of the piece of oak that will just carry his table; he seeks till he finds the safe minimum scantling, and this successful discovery is the triumph of his art. Whilst our forefathers would take a log of oak, all regardless of this politico-economical search after the greatest possible strength with the least possible stuff, and would carve it into one of those ponderous and fantastic legs which charm us by their quaintness, although they defy our efforts to lift them.

In further illustration compare the broad, deep, capacious fire-places, whereby our forefathers would warm themselves, with the scientifically constructed, snug, rumfordized stove, with bevelled cheeks, no hobs, contracted openings, all contrivances admirably adapted to meet our modern requirements of convenience and economy; but how destructive to the poetry of our grandsires' ruder arrangements!—men of a rough, bold stamp, who, provided they secured to themselves a warm chimney corner, appeared to regard with great indifference the minor evils of smoke and blacks.

Then follow many other details of the manner the carpenter is to lay his timber, and the author adds that the clerk of the works must be very careful not to suffer the carpenters to lay any timbers under the chimneys, "whereby many houses have been set on fire, and burnt to the ground." We have then a variety of scantlings for the timbers of floors and roofs, which scantlings he gives as fit for substantial structures, but which are "not usual in lime and hair bird-cage-like buildings"—a remark that leads us to the conclusion that the flimsy structure of modern speculators was not wholly unknown to our ancestors. The care of the clerk of the works must also be on "materials of weight, as sauder, wherewith an unconscionable plummer can ingrosse his bill." In this respect we see that 200 years' experience has not advanced us—we have still "unconscionable plummers." "The clerk is to see sauder weighed and well managed, and in the attesting of bills have a care not to pass his eyes *slightly* over them, lest when a plummer sets pounds of candles used about his sauder, that trick prove as insupportable as that of one who, having played away a round sum of his master's stock in a journey to the East Indies, set down in his bill to have paid a hundred pound for mustard." "He must likewise have a clear insight on the glass pains of the glazier; suffer no green pains of glass to be mixt with the white. He must with his eyes follow the measurer of the work, his rod or pole; so the line wherewith the joiner's work is measured, that it be not let slide through the measurer's fingers, since the joiner's work hath many goings in and out, and a leger-de-mayne may be prejudicial to the paymaster's purse. It were likewise better to agree with painters to have their work rated on running measure and on the straight, as the carpenter's work, who (being of an honest Joseph's profession), are as deserving to be well payd as the painters who do but spend the sweat of wall nuts (to wit, oyle), the carpenters that of their browes."

"As for coverings of buildings, lead is best for churches, for who would rob them but goths and vandals? Blue slates are most comely for a nobleman's palace," "a roof covered with them is of an equal color, when as red tiled roofs the least breaking of them makes great chargeable work for the tiler, who often removes ten tiles to lay two new ones in their place, and renders the nobleman's roof like a beggar's coat."

Our author then proceeds to some remarks on the making of bricks, and recommends the clerk of works to look well to the working of the clay, which, if not well wrought, will never make good bricks. He says, that it is usual to pay 5s. per thousand for making and burning bricks, the clay-digging therein comprehended. He then goes into some details as to the relative expense of making bricks, and purchasing them made; whereby it appears that only 6s. 8d. are saved in 20,000 bricks, by making them. He says, that of clam-burnt bricks, 500 out of 20,000 are unfit for work.

Various other details are entered into respecting the making and use of bricks. Men dig clay, he says, for 6d. the thousand; lime is burnt at 4s. per load, and costs 40s. a load. Touching the use of chalk in building walls, he says, that "those that mend the making use of chalk in their walls must be contented (if the ground hath springs) with the green mold which breaks thro' the whitened walls within doors. Walls about a parke or court may be *fited* with chalk, which may be digged for 18s. per load, and brought for 2s. 6d. the load." "Good country bricklayers do work at 27s. the rod, the bricks not being rubbed. Good London bricklayers will work the rod for 40s. with rubbed bricks; the inside for 33s., arches comprized."

Then follow some remarks about lime burning, describing the mode of burning it "in China and other parts of the Indies," wholly with wood and not in kilns.

Our author now proceeds to a new division of his work, which he heads, "As for choice of master workmen." "King Henry the Eighth," he says, "shewed a good president when the serjeant plummer, calling his workmen to caste, in his presence, a leaden medal which was given him:" the king told him, "he would have no walking master-workmen." Those, therefore, which are fit to be employed are working masters, and not those who walk from one building to another; "nor will any master workman deny to have had as much more done and well, by bestirring their hands and tools in their workmen's presence than otherwise." I cannot refrain here from calling your attention to the singular social change that has taken place since King Henry inflicted his reprimand on the *walking* instead of the *working* master. Fertile as he is said to have been in oaths, certainly no *usual* oath would have sufficed to express the royal indignation had he lived in these times, to have seen the master workmen not walk, but *drive* up to his works in as fair an equipage as that of any of his most favoured courtiers. Our author proceeds to counsel that master workmen be bound to a precise time, and to observe exactly the model held forth to them by the chosen surveyor, and to make good at their own cost what they do amiss. He further counsels "to shun the reprehending a master workman of any oversight before his men; but rather privately; since it would be to him as prejudicial as a check to a commander at the head of his troops."

We have next a division of the work entitled "As for the Builder and Proprietor." He advises the builder (by which term he always means the employer) to buy his own materials, and to have in reserve such a stock of his own as he can well spare, and also, he adds, "against the mistakes of workmen, a stock of patience;" nor to begin building walls before March, nor after the middle of September.

The next twenty-eight pages contain a variety of miscellaneous and not very well assorted notes respecting the prices of materials and workmanship.

Touching the paving of courts, to prevent the overgrowing of grass and the charge of too often weeding, he says, "it would not be amiss to lay chalk or lime under the paving, and to do the same in gardens under gravel walks"—a piece of advice which is well worthy of notice.

With respect to street paving with pebble stones, he alludes to a Mons. Le Cœur having recently introduced great improvements in paving works done under the commissioners. This French undertaker appears to have formed a company for carrying out a new invention in paving, "whereby they are not only able to make a most substantial good pavement, but are likewise capable by that same new invention to maintain it durable for twenty-one years." Our author (who, as must have been observed, is remarkable for the want of order and method in his remarks), brings his book to a close with some, what he calls *necessary* notes. "What contributes more to the fatal end of many good mother's son is ill-building: paper-like walls: cobweb-like windows: doors made fast as with packthread, purposely made to tempt men who, through extreme want, are become weary of a languishing life, and to whose fatal end, ill builders are in a manner accessory." He says that the scarcity of thieves vaunted of by the Hollanders, German, and other northern nations, is to be attributed

to the defence they are wont to make against thieves: he then describes very particularly the Hollander's mode of making outside window-shutters so secure by fitting them very closely to the reveals, and by a careful arrangement of the bolts and hinges,—precautions which, however necessary, certainly do not lead us to entertain any exalted idea of Dutch honesty in the seventeenth century. Some further suggestions are then made for rendering doors and windows secure both from rogues within and without: a suggestion, even, is made for the better securing a house against "thieves who do untile houses." We have then some remarks on porches, which he says serve to distribute alms to the poor, but also prove often cumbersome, being the receptacle of foul creatures, who, as soon as they are gotten into a court, make it their rendezvous. The entrance to a hall, he says, is not so proper in the middle as at the end, or at all events, set as much as possible near the end. He urges, that the principal floor of a building should not be level with the ground; he then introduces "his story of one in authority, who, passing by a town wherein the people generally did not outlive their thirtieth year, caused all the backs of their houses to be made the front; and the windows which were forward to be made up, to free them from that infectious aire that did shorten their lives, which had its effect accordingly, and it is therefore I do so much insist on the point of placing a building where good ayre is, and that neither chimnies nor doors may be so placed as to serve for the attraction of infectious aire, which kills more than the sword, or the sea overturnes ships." A truth, which, although uttered in 1663, we seem now, in 1849, only just beginning to perceive the importance of. The book closes with some desultory remarks of no great importance as to the choice of clerks of works and surveyors, from which I need only quote the following portion:—

"Let all owners [of houses, he means] be prepared to *repent*, whether they build or *not*, for it is like the fate of many who marry, or marry not. Let both the one and the other lay, as in a scale, their several charges, vexations, cares, labours, and pleasures, they will find this to be true, viz., if they build they must be at great present disbursements, vext with as many oversights, and to be overeach'd in bargains concerning their materials. If they build *not*, they are subject to the inconvenience of houses built according to the fancies of [other] owners; and when they shall cast up the summs of money spent in the rent, besides many chargeable alterations, they shall finde that they might have built a better and more fit habitation for them and their posterity."

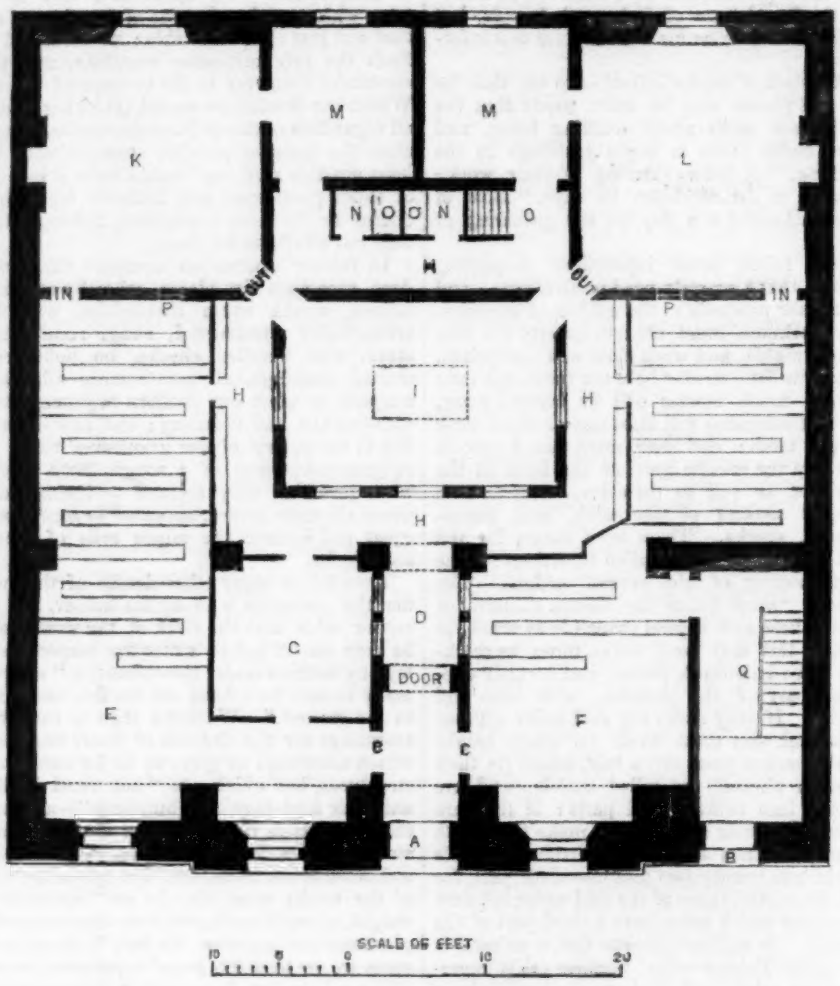
SYDNEY SMIRKE.

THE LATE MR. ROBERT SIBLEY.

WE record with regret the sudden decease (on the 31st ult.) of Mr. Robert Sibley, when apparently in perfect health, and at the age of 59. But a few days ago he wrote us on the subject of burials in towns, and the desecration of the dead, and now he himself lies in the lone grave. Mr. Sibley was the county surveyor for many years, but resigned the appointment for that of the district surveyorship of Clerkenwell. He was, besides, surveyor to the Company of Ironmongers. He was a member of the Council of Civil Engineers. Amongst the buildings which he erected were the Hanwell County Lunatic Asylum, the Light Horse Volunteer Barrack in Gray's-Inn-lane, now a refuge for the destitute, and several small bridges, among which was Brentford. He also constructed the large iron wharf at London-bridge. The interim appointment to the district surveyorship has been conferred on his son, Mr. R. L. Sibley, who is a candidate for the office permanently. The election will take place on the 19th.

ST. STEPHEN'S, WALBROOK.—The financial disputes in Walbrook being at last settled, we understand that the parish have now funds in hand to repair and adorn the church. We trust that no time will be lost in commencing this much-needed work, and that it will be done under proper direction, and thoroughly.

PLAN OF DISPENSARY, CLEVELAND-PLACE, BATH.



PLAN OF A DISPENSARY.

ANNEXED is the plan of the dispensary in Cleveland-place East, Bath, the arrangement of which seems very convenient, and may serve as a suggestive type. The annexed references will explain the appropriation of the apartments and show the modes of access.

- A Public entrance.
- B Private ditto.
- C C Patients' ditto.
- D Visitors' ditto.
- E Room for physician's patients.
- F Room for surgeon's patients.
- G New patients.
- H H H H Passages.
- I Dispensing-room, with lantern light.
- K Physician's room.
- L Surgeon's ditto.
- M M Private ditto.
- N N Water closets.
- O Stairs to hot-water furnace.
- P P Ventilators.
- Q House stairs.

It will be seen that the physician's patients go in on the left-hand side of the hall, and taking a seat wait their turn to be admitted to his room (K) by the door marked "IN:" having received his prescription, they retire by the door marked "Out," obtain the medicine at the window of the dispensary-room (I), and leave the dispensary by D.

The surgeons' patients take the same course on the opposite side.

The building is warmed by hot-water pipes.

Above there is a large committee-room, with sitting-room and three chambers.

In few ways can the affluent better aid their less fortunate brethren than by founding and affording support to DISPENSARIES.

PUBLIC NECESSARIES.—Nothing has yet been done in this respect, and probably will not be till the Health Commissioners take up the matter. It is one of very serious import, and is necessarily denied the advantage of public discussion.

THE ROMAN PERIOD OF GREEK DECORATIVE ART.

IMPORTANCE OF SYSTEM IN STYLE, AND OF TASTE AND SUBORDINATION IN ORNAMENT.

IN pursuance of his course of lectures on decorative art, at the Government School of Design, Somerset House, Mr. Wornum proceeded, on Friday, the 25th, to follow up his remarks on the Periclean age of Greek art (*vide* p. 112), with some account of its progress, or decline rather, under Roman auspices.

In the last lecture, said he, we reached the culminating point of Greek decorative art, illustrated in the Parthenon, the Erectheium, and the Choragic monument of Lysicrates. We have now to trace its decline, or point out that deterioration of style which immediately followed the period of Alexander, and which has caused this later age to be termed the period of decline.

The designation appears to be just, though, as regards the mere production of ornamental works, it exhibits not only a more profuse expenditure, but even more energetic enterprise, in, perhaps, every species of ornamental art, than any preceding age. The decline was in the *art*—in the manner in which the decorations were applied—not in the ornaments themselves. These were the same, and, in most cases, equally well executed; but that quality which we term taste—that is, judicious selection and arrangement—seems to have experienced a total revolution. Quantity was apparently mistaken for quality; and the whole decorative art of this period, viewed generally, well illustrates that deficiency of power in the artistic mind which Apelles so aptly exposed. If the Roman works are not beautiful, they *are* at least rich. When I say Roman works, I by no means allude merely to works executed at Rome, but to all efforts of this period in any part of the ancient world to which Roman influence extended. And from the time of the conquest of Greece, about a century and a half after Alexander, few great works were under-

taken which did not owe their origin immediately to Rome, though perhaps in nearly all cases executed by Greek artists. The Romans even collected and exhibited works of Greek art at Rome *within* a century after the death of Alexander, as the works brought by Marcellus from Syracuse, 214 B.C.

Under these circumstances we may, perhaps, safely term this period of decline—that is, from Marcellus to Constantine the Great—about five centuries—the Roman period of Greek art. We cannot call the art of these centuries Roman art, but it was strictly Greek art under Roman influence, and its chief monuments, even in the Oriental provinces, were raised by the orders of Roman Governors or Emperors, —as at Petra, Palmyra, Baalbec (Heliopolis), Athens, Pola, and Spalatro.

The decline, then, which characterises this remarkable period is not one of poverty, but rather of luxury; it was an embarrassment of riches—an injudicious application of ornament, from the want of that proper discrimination which we term taste, or rather, perhaps, that want combined with the ostentatious rivalry of a luxurious age. And yet, with all its enterprise and boundless expenditure, this age has added but one single new form to those which constituted the elementary types of the preceding age. This new form is *the shell*, which we find cut on the modillions of the arch of Titus, at Rome. This species of net-work is not new. Net-work of gold was introduced largely in the funeral car of Alexander the Great: it appears to be a mere imitation of basket-work, or what it literally is, net-work. We have in this period, also, vertical reeding, rare in Greek art, unless in furniture.

Style and system may be looked upon as synonymous terms in ornamental art. Besides the ornaments themselves, we must have some system of applying them. And if the prominent and characteristic members of certain established styles are promiscuously thrown together, the principal features of one style applied as secondary to subordinate features of another, the value of all is diminished or lost, and the general effect has but its vagueness to characterise it. The same ornamental types may be used in the development of new styles, distinction of style depending not so much on the types themselves as on the mode of using them. But in the development of any particular historic style of ornament, we are strictly limited to the elements belonging to that style; and in combining styles, the various members belonging to the same style should preserve their relative degree of importance.

The general decorations of the Roman period, however, and especially those of Pompeii, exhibit an utter disregard of these observances; and thus all distinctions of style and consequent peculiarities of character are lost.

Systematic designing exhibits the art of the ornamentist in a highly intellectual light. Whatever style prevailed in a particular period, it is one expression of the spirit of that age; and by thus attending to these periodic or local developments of ornament, the designer affords not only the delight and gratification arising from the contemplation of a beautiful work of art, but at the same time presents an agreeable and instructive record of the past, full of the most valuable suggestions.

These remarks apply as much to furniture as to decoration, and also, though in a less degree, to designs for costume and ornamental manufactures. For unless the designer for cabinet work, papers, furniture damasks, and stuffs generally, conforms as much as the decorator with the distinctions of style, these manufactures cannot contribute anything towards that complete developement of ornamental art which it is the object of these schools to foster. There is perhaps only one department of manufactures in which this discrimination of the various styles of ornament can be considered a matter of indifference,—that is in the printed or woven fabrics for ladies' dresses. Here it should rather be avoided, as we do not wish to see our mothers, wives, and daughters look like antiques, or even as middle age ladies. For this class of fabrics, the most appropriate design is such as shall be completely unobtrusive, and while ornamental, at same time strictly subordinate. To make so conspicuous a design as to attract the attention from the lady herself to the pattern of her dress is to commit a capital error: it then no longer adorns but rivals the person. This elaboration of an accessary at the cost of the principal object, is an error too often committed in works of art, of which even the Greeks have afforded a sufficient number of examples: as Androcydes, the contemporary of Zeuxis, who painted a picture of the six-headed sea-monster Scylla, in which he gave so much care to the *fish* he introduced in the composition, that the monster herself, really the picture, was comparatively unimportant, and Androcydes was ever after ridiculed for having forgotten his art for his appetite, for he was known to have been very fond of fish. Protogenes too, the rival of Apelles, in his celebrated picture of a "Reposing Faun," had introduced a quail so admirably painted, that the first exclamation of the spectator was, "what a beautiful quail!" This so annoyed the great painter, that although the picture was already dedicated, he solicited and obtained leave to efface the offending bird.

Now, it is quite as easy for the ornamental designer to fall into this error as for the painter. His ornaments may become so prominent as completely to obscure the intention or destination of the object he has ostensibly endeavoured to adorn. Every addition by way of ornament should tend only more completely and elegantly to express the designer's purpose: otherwise what is principal is sacrificed to what is but secondary. It is the more or less strict observance of this principle which constitutes good or bad taste,—not the mere character of the design itself; for what might make very handsome carpets, oil cloths, or papers, would in most cases appear ridiculous if used for dresses.

Thus a deteriorated age may use all the elements of the most refined,—possess even the same imitative or mechanical skill in execution,—and yet by a want of discrimination in the application of design, exhibit even a barbarous character in comparison with the design of that period, in which a due attention has been paid to the propriety of application, whether in quantity or quality. And thus a barbarous style of design may, perhaps, more easily arise out of too much ornament than too little.

This, then, is the character of that period of decline which supervened upon the great age of art which attained its highest development in the time of Alexander the Great, and gave evidence of a decay even in the time of Alexander himself, the description of whose funeral, preserved by Diodorus, shows how completely the taste of the Greeks had become orientalized. Sumptuous splendour had taken the place of taste. The decline, however, was very gradual, especially in sculpture. Some of the most prized productions of ancient art are maintained by many critics to belong to a much later age than that of Alexander—as the Laocoon, the Torso of Apollonius, and the Apollo Belvedere—all of them assigned to the time of the Roman emperors. The school of Rhodes was the latest of the Greek schools that maintained a great reputation. Painting seems to have been much less enduring. Mere technical excellencies of art became prominent, and higher qualities were overlooked—*form* became paramount over *essence*. Such was the decline of Grecian art which rapidly supervened on the close of the Alexandrian age. That it never revived from this decline is not remarkable. Greece not only became a Roman province, and lost her artists, but almost every important work that could be moved was transported either to Egypt or to Italy. The Romans were not contented with removing pictures and statues, but the very walls were stripped of their plastering, and the pieces transported in wooden cases to Rome. The spoliations of the Grecian kingdoms of Asia and of Sicily continued uninterruptedly for about two centuries, yet such was the inconceivable wealth of Greece in works of art that Rhodes alone still contained upwards of 3,000 statues, and there could not have been less at Athens, at Olympia, or at Delphi. But all these were nothing compared with the myriads of works, pictures, and statues which were collected together in the public buildings of Rome. Cassiodorus says that Rome was one vast wonder, a statement we can well understand, if we are to judge from the temporary theatre constructed by Scaurus in honour of his ædileship, which he decorated with 3,000 bronze statues.

Considering this unparalleled wealth, then, in works of fine art, it is quite consistent that the Romans should endeavour to decorate their buildings in a style of commensurate splendour and profusion, and thus we find that the most florid examples of purely Greek ornament are plain when compared with the Roman treatment of the same forms, although it is very probable that Greek artists were employed to execute their elaborate designs.

By help of numerous illustrations the lecturer then proceeded to contrast the Greek and Roman orders, and to trace their variations, enrichments, transformations, complications, and confusions during their 'decline and fall.' Examples of ancient ornamental art in the forms of armour, helmets, shields, &c., and of sculpture, candelabra, and other designs, were also referred to and described, with various "preposterous combinations" and "fanciful decorations," deprecated by Roman writers themselves as illustrations of "a beautiful system of ornament run mad—a bed of flowers overrun with weeds." The barbarous forms and colours of specimens of stucco-work and other decorative details from Pompeii were exhibited in justification of such complaints. That even Pompeii, however, a small provincial town, exhibited occasional traces of a magnificent system of decoration, was freely admitted.

Having passed in review every element of classical ornamental art, continued the lecturer, or at least every element of importance, we will now briefly consider what is the exact object of this historical investigation. * * * This is the view with which we study the history of art,—to discriminate and individualize the styles of the various epochs, and, by thus developing distinct characters, to multiply to an equal extent our means of viewing nature, and our powers, consequently, of representation. The real object of historical knowledge, therefore, is not the mere copying what has been done before, but the acquisition of a power which not only supersedes all copying, but which alone will ensure the production of that variety of ornamental design which, the simplest theory must make manifest, is the ostensible effort of every designer.

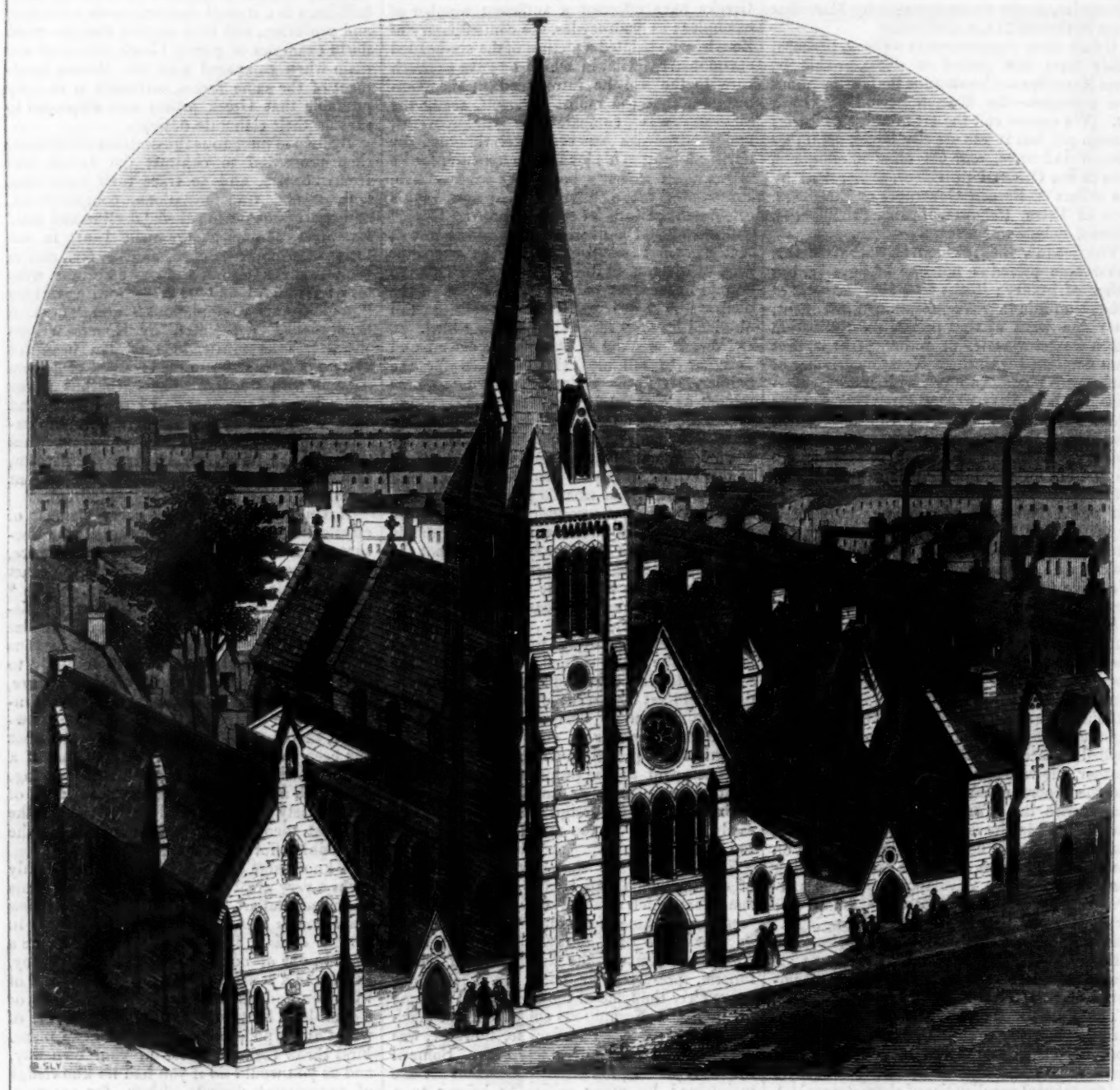
A knowledge of the various styles not only gives a very great command over the elements of ornamental art, but will enable you to view what comes under your own observation in several distinct lights. For instance, take a walk in one of our fields some summer's day, and make a series of different designs out of what you find there,—say a blade of grass, or a dock-leaf, butter-cups and daisies, an ear of wheat and a poppy or any other simple plant. First throw them together in your own way, and as you would do if you had no knowledge of ornamental design. Then, for example, consider how an Egyptian would have treated these things, and arrange them into a frieze ornament, such as we have many examples of in the temples of Egypt. Then make an attempt at the Doric, and do not forget the anthemion; from that age pass to the Alexandrian, producing a more expansive and rich arrangement, bearing in mind the acanthus; and finally, try the Roman, in which you may put all the gorgeous exuberance of display of which your materials are capable, not forgetting the scroll, and that in both the Alexandrian and Roman styles fabulous animals are admissible. This is only one of a thousand useful experiments or exercises that your historical knowledge will enable you to make in the arrangement of new materials in established forms; and it is a field of enterprise that, without historical knowledge, would be wholly closed to you. I may observe that you will ensure a much greater variety by disposing the same materials in different forms than by arranging different materials in the same forms.

By following out this system, with a thorough knowledge of ornament, you cannot fail to produce variety and beauty at once,—the end of all these studies, and the object of every ornamentist, whatever may be the ultimate destination of his design.

BRICK DUTIES.—Mr. Peto has presented a petition from Norwich, praying for a reduction of duties on bricks and windows.

ST. BARNABAS' COLLEGE, PIMLICO.

Messrs. CUNDY, Architects.



ST. BARNABAS' COLLEGE, QUEEN STREET, PIMLICO,

IN THE DISTRICT OF ST. PAUL, KNIGHTSBRIDGE.

The first stone of the college was laid on St. Barnabas' day, 1846: it includes schools for boys, girls, and infants, about 600 in all, twenty-four of whom are to be on the foundation, to be clothed, boarded, and lodged, as well as educated, gratuitously. The residentiary house is constructed to hold four clergymen, whose duty it will be to attend to the parochial duties of the district, and to minister in the church. They will also teach in the schools, and have the special superintendence of the twelve choristers on the foundation. The church is intended to be entirely free, without pews or paid seats, and will be capable of holding 700 persons in open benches.

The schools were opened on St. Barnabas' day, 1847, and at present serve the purpose of a temporary church for the district.

The residentiary house has been completed, and is now occupied, and the church is built with the exception of the upper part of the tower and the spire, which are expected to be finished by the middle of the summer, and during the following year it is probable that the completion of the church may be accomplished, so as to be ready for consecration by St. Barnabas' day, 1850.

The buildings are constructed of Kentish rag stone, both externally and internally, having dressings and a spire of Caen stone.

The roof of the church, chancel, sacristy, and choir vestry are of oak.

The cost of the schools, residentiary house, and church, with the enclosing walls and appurtenances, will be about 19,000*l.*

The freehold site of the college was the munificent gift of the Marquis of Westminster.

The funds have been provided hitherto by the voluntary contribution of the inhabitants of St. Paul's district, through the indefatigable exertions of the Rev. W. G. Bennett, the incumbent. The style of the architecture is the first Pointed (Early English), and which appeared to the trustees of the college best adapted for the poor man's church. There is yet to be collected about 5,000*l.* for the completion of this establishment.

The dimensions of the interior of the church are as follows:—The length is 97 feet from east to west, including the chancel, 30 feet deep; the width of the nave and aisles 51 feet; and the height of the nave 50 feet: the height of the tower and spire will be 170 feet. The general arrangement is a nave with north and south aisles, a tower at the west end of the north aisle, a south porch, a chancel with aisles, a sacristy, and choir vestry, all attached, connecting the church to the other portions of the college. The whole of the internal fittings are to be of oak; the church and chancel are to be paved with tiles, and all the windows are to be appropriately glazed with stained glass, much of which has been already offered. There is a crypt under the chancel. The architects are Messrs. Cundy, to whom praise is due for the satisfactory manner in which this interesting pile of buildings is being carried out.

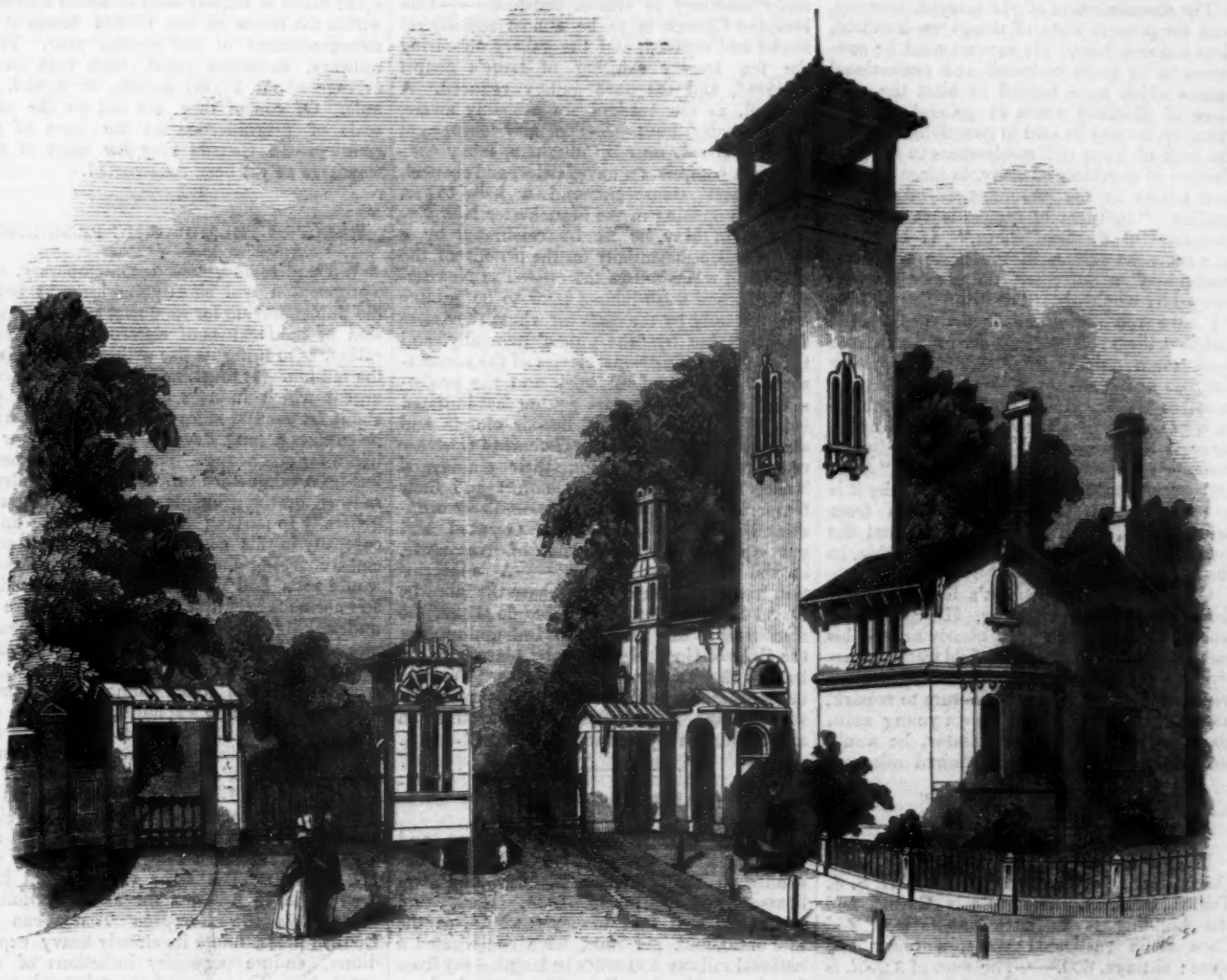
In our engraving, the schools are seen on the left, and the residentiary house on the right of the church.

The Aylesbury Competition.—The competition for the erection of judges' lodgings at Aylesbury, into which ten architects entered, has been decided in favour of Mr. Lamb. A respectable correspondent (one of the competitors) comments on an ambiguous statement made by the chairman of the magistrates, Sir Thomas Aubrey, in announcing this result to the few who were present, to the effect "that the reason which had led to their choice was known amongst themselves, and the less said about it the better for all parties concerned;" but this statement is too vague to justify any suspicion of unfairness on our part.

Artists' General Benevolent Fund.—The thirty-fourth anniversary dinner of this institution was held on Saturday in last week. The Marquis of Westminster presided, and about 420*l.* were subscribed.

LODGE, MANOR PARK, STREATHAM.

Mr. ROUMIEU, Architect.



LODGE: STREATHAM.

The accompanying engraving represents the tower lodge on the principal entrance to the Manor Park, Streatham. The building, which is from a design of Mr. R. L. Roumieu, architect, is in the Italian style of architecture, and built of brick, covered with metallic cement: it contains four bed-rooms, two sitting-rooms, with kitchen and scullery complete.

The tower, which is 70 feet high, contains a staircase to the top, which commands a beautiful view of the surrounding country: on a clear day Epsom, Harrow-on-the-Hill, and Highgate can be seen without the aid of a glass. It was built for the residence of the agent to the estate. The park is being belted round with houses of various styles of architecture, leaving the interior open for walks and pleasure grounds.

ARCHITECTURAL SOIREE AT LIVERPOOL.

The Liverpool Architectural Society held their first *soirée* on the 28th ult., when a nice party assembled, and the whole of the proceedings passed off with great satisfaction. The band of the 46th and an exhibition of the electric light were pressed into the service, nor were the creature-comforts wanting; in fact, one of the local papers devotes about half the space allotted to an account of the meeting to commendation of the jellies and creams then and there dispensed.

The Rev. D. James, F.S.A., was in the chair.

Mr. J. A. Picton gave an account of the origin of the society, already stated in our pages. Mr. Picton further said,—It must be admitted that great improvements might be made in building, and in architecture generally, and these would be promoted by the establishment of their society. They proposed to form a good architectural and artistical library, but that they were as yet unable to carry out. It would also be their object to furnish illustrations of the remains of antiquity in the neighbourhood. Besides this, the society would have a great effect in calling out the energies of architects still further than they had been, and affording greater facilities for students.

Mr. Cockerell, R.A., one of the guests of the evening, was then introduced to the meeting, and expressed the gratification with which he viewed the establishment of the society. Speaking of Liverpool, he said, he did not think that in Europe there was a modern building at all equal to St. George's Hall, as regarded its structure, unity of design, and magnificence of execution. Another building, the Town-hall and Exchange, had also on all occasions excited his admiration. He was happy to learn that, during the last year, an institution had grown up which it had always appeared to him was required in Liverpool, where there was a certain grandeur of mind, arising from the enterprise and commercial spirit for which it had been, at all times, remarkable. He felt sure the art would flourish there, because they had not only many able architects, but they had amongst them teachers and guides in all the various walks of life. In the present state of progress it was highly desirable, unless the architects were to lag behind, that they should take up a position, and, by union, create a body, in order to balance the great social influence which was bearing upon them on all sides.

Mr. S. Holme said he thought that a good understanding ought to exist between the architect and the builder, as there was nothing more likely than such a course to promote permanent success. The minds of mechanical men were expanded by having the advantage of communicating with those of superior thought and intelligence, and architects themselves might occasionally receive practical hints which practical men were so able to give, and by an action and re-action there would be an advantage to both. The theoretical architect would receive advantage from being operated upon by the practical architect, and practical good would result to themselves and to the society. When they looked at the achievements in science and art, at the present day, it was necessary, if architecture was to keep its place, that the members of the profession should undergo a course of study, and unite themselves together in order to promote their general improvement and experience. Unless they did so they must lag behind in that wonderful march of progress which they saw now in existence throughout the land.—Mr. Sharpe and other gentlemen also addressed the meeting.

THE SHEFFIELD TRADE.

In last week's *Sheffield Times* is published the essay selected as the best of those presented in competition for the prize offered by the proprietors of that paper for an essay "On the Present Condition and Future Prospects of Sheffield." The successful competitor is Mr. Joseph Hutton, Saint Cross, Eckington, who appears to have had long experience in the trade as a manufacturer, and who was himself 'shelfed' by the unionist workmen no less than twenty-seven years since. His sentiments on this particular subject correspond entirely with our own. If there are to be unions, he remarks, let the masters unite as well as the men, and come, if possible, to some mutual understanding for the settlement of differences, otherwise, "as things are now in Sheffield, the masters with money, who employ workmen, will soon disappear, and leave only working masters, who, like ravenous wolves, will tear each other to rags." As to new trades that might be advantageously introduced, he says,

"I know of no natural objection; but what man of sense or company of men would lay out their money in making preparations in Sheffield, so infected with trade-unions."

The dissatisfaction of the essayist, however, with the present state of things in Sheffield, does not rest here. He exposes what he conceives to be those technical and professional causes which have tended to blast the good fame of Sheffield wares in general. These, virtually, he may be said to comprehend under the head of haste and carelessness in the production of worthless quantity, in place of care and labour in the manufacture of sterling quality. "Softness of temper is the general complaint of Sheffield wares." If hardened to a sufficient extent, in the haste and carelessness of manufacture, the goods are destroyed by wholesale. The grinder, moreover, "I have seen ram dozens into the wheel-fire, and heat them red-hot, in order to dispatch his work more quickly;" otherwise, he either destroys or returns them to the manufacturer to soften them. Haste, too, in the manufacture of steel he deprecates, recommending strongly the preparation of cast steel by the manufacturers under their own eye. "As to cast-steel," he says, "few are aware why it is so uniform in temperature; it is from being melted, which mixes the high and the low conversions, the outside and the inside, in the crucible."

On the whole, the essayist's hope for Sheffield is by no means cheering. His concluding words, which do not very clearly express his meaning, are, "That the Sheffield trade may revive and progress is the fear, but still the fervent wish of the writer." He takes care to remark, however, that if he were now a young man, about to enter into the business, he would steer clear of Sheffield by a hundred miles.

NOTES IN THE PROVINCES.

Plans for a new church at Birch, near Colchester, have been prepared by Mr. S. S. Teulon, architect. The style is Gothic, and the building is to have flint facings and Caen stone rusticated coins, a tower and spire: sittings, 600.——The sum of 3,000*l.* is to be at length borrowed, on church-rate security, for the repair and re-opening of Aylesbury Church.——The Grimsby dock area reclaimed is 132 acres, length of dam and embankment, 6,500 feet, with projection into river beyond high water 2,900 feet; head of water against the dam at spring tides, 25 feet. —— It is proposed to erect a monument to Cromwell on the site of Slepe Hall, St. Ives, where he resided at the opening of his public career. —— Trinity Congregational Chapel, Queen's-road, Reading, lately opened, is in the Early English style, with a turret and pinnacle at each of the four angles, and a triplet window and slightly projecting porch at the end facing Queen's-road. Swindon stone with Bath stone dressings have been used in its construction. The exterior presents carved corbels and finials, gable and dripstone terminations, &c., so far ornamental, but there is no 'superfluous decoration.' The roof, interiorly, is of simple construction, and the principals rest on stone corbels of carved foliage. There is a gallery of timber across the northern end. The benches are all open and low backed, with *fleur de lis* terminations. The woodwork in general is of deal, stained and varnished. Mr. W. F. Poulton, of Reading, was the architect, and the contractors were Messrs. Cooper and Sons, of Maidenhead; sub-contractors, Mr. Darter, painter, and Messrs. Wheeler for masonry and carving. —— The consternation and distress, says a contemporary, occasioned among the working mechanics and labourers in Plymouth-yard, as the details of the Government plan of reduction become developed, is extreme. Many who have been doing duty as leading hands over hired mechanics for years, themselves having been previously entered on the dockyard establishment, and supposing themselves on that account secure from discharge, are to be summarily turned adrift at the close of the financial year; the only alternative being the bitter one of taking the berth and pay (12s. a-week) of a labourer, and this considered a favour.——A baptismal font has just been added to the Holy Cross Church, Pershore. It was executed by Messrs. Gibbs and Son, Oxford, and cost 30*l.*, raised by the curate. ——The roof of Holy Rhood Church, Southampton, is now covered in, the galleries are in progress, and the interior masonry is almost finished. —— Collumpton Church is to be almost entirely reseated and repaved, and the gallery obscuring the fan tracery vaulting of Lane's chapel removed, and the nave gallery reduced. A chancel, as our readers are probably aware, was recently built.——The new church at Yardley Wood, near Birmingham, lately consecrated, comprises a nave, aisles, and chancel, with short transepts, and a bell tower. —— The opening of the Manchester New Exchange, in May, is to be celebrated by a public ball, substantially for the benefit of the baths and wash-houses there——The Newcastle baths and wash-houses seem to be in busy use, not only by the class for whom they were designed, but by 'the public' generally, and those truly industrious classes of the community, the maids of all work and the professional washerwomen, are getting fast initiated into all the mysteries of hot-air closets and steam-boilers, thus, as the *Gateshead Observer* remarks, at once saving their employers' houses from damp and discomfort and their tempers from still worse evils.——Three ornamental windows have been executed and put up by Mr. J. Gibson, of Newcastle, in the church at Walker.——A subscription has been opened to purchase the late Mr. David Scott's painting, "Vasco de Gama, the discoverer of the passage to India, doubling the Cape of Good Hope," to be placed in the hall of the Trinity House at Leith. Why do not corporations and other bodies purchase some of the large pictures now spoiling in artists' studios *before* the painter dies?

RAILWAY JOTTINGS.

Sir F. Head, in his 'Stokers and Pokers,' states that 10,000,000*l.* were expended in Parliamentary inquiries and Parliamentary contests in 1845, 1846, and 1847, and that that money "would, at the rate of 20,000*l.* per mile, have constructed a national railway 500 miles in length—say from London to Aberdeen."——The cost of advertising one railway scheme in the London morning papers alone is said to have been 2,500*l.*——The Great Western Company, says the *Liverpool Times*, "have effected a saving of 15s. per annum by wafering instead of sealing their letters. What an anomaly! their income is increased by *waxing less*." If the waferer, however, get no more a-week than the saving per annum, he will be apt to reduce the profit by eating the wafers—a circumstance which ought to be taken into consideration—though he will not wax so fat, we fear, even in such a way of faring, as to justify any further reduction of wages.——Two hundred more of the workmen on this line, besides clerks, it is said, are to be discharged on 1st May—not a very bright summer's morning to them, poor fellows. —— "At length," says Herepath, "the Government has determined to try whether the Great Western Railway Company of Common Carriers are to be amenable to the laws of the land or not; whether they shall be compelled, like other Companies and individuals, to obey the Acts of Parliament granted on their own solicitation, or shall treat them as waste paper. It will be remembered that, some time ago, the case for the reduction of the Great Western fares was laid before the Attorney and Solicitor General, and that they gave their opinion that the Great Western ought, under their Act, to reduce their fares and charges. The Great Western have neglected to do so, and therefore the Crown has ordered a bill to be filed in Chancery against them to compel them."—— The Copenhagen tunnel on the Great Northern is about to be let. This tunnel is about 600 yards in length: it commences at the end of Mr. Brassey's contract, towards, or rather into London. The short length, about three-quarters of a mile, between the Copenhagen tunnel and King's Cross station, has already been contracted for, so that the Copenhagen tunnel will, when let, leave the line immediately into London completely contracted for. The only work which will then remain to be disposed of at the London end, will be the King's Cross station.——A railway bridge at Stowe, near the Marton-road station, has lately given way it is said.——The *American Railway Journal* states that no fewer than 6,421 miles of railway were in actual operation within the limits of the United States at the commencement of the present year. These railways, including plant, have cost on an average about 30,000 dollars, or 6,000*l.* per mile. Of course they are not on the same scale of magnificence as the lines of this country. In Canada very few miles of railway have as yet been constructed.

ELECTRO-TELEGRAPHIC PROGRESS.

We understand, says a contemporary, that a proposition will shortly be brought before the public, having for its object such an extension of the facilities of electro-intercommunication, as to bring its use within the means of the million. It must be something extremely urgent which induces the capitalist to pay about 7s. per 100 miles for twenty words, when he can get a long detailed letter in five or six hours for one penny. The system in America has been established on thousands of miles of railway, on the principle of enabling the public generally to partake of its advantages; and a company in this country, on the same principle, charging about 6d. or 1s. per message, would soon find the decrease in price produce an enormous extent of business, and make the undertaking exceedingly popular. Increased means of never-failing power, unquestionable secresy, and great reduction in charges, are recommendations that cannot fail to prove highly attractive to capitalist, merchant, and trader.——One of the most remarkable features in connection with the transmission of President Taylor's curtailed "message," by telegraph, from Liverpool to London, was the expense. It occupied about ninety-eight lines; and the sum paid by Willmer and Smith to the Electric Telegraph Company was 21*l.* sterling. The same thing would have been done in America for as many dollars. How, says the *European Times*, can the English press, under its already heavy expenditure, endure pecuniary inflictions of this nature?——The wires of the telegraph working along the South-Western have been brought round from Fareham to the terminus at Landport, Portsmouth, and thence carried across the fortifications. The Admiralty are to communicate by cyphers, with, of course, a secret key. The old semaphore stations, however, are not to be given up, and a new one for Osborne is talked of.

METROPOLITAN COMMISSION OF SEWERS.

A general court was held on Thursday, at the Court-house, Greek-street, Soho-square; the Right Hon. the Earl of Carlisle in the chair.

The Drainage of Kensington.—A plan for the effectual drainage of the town and workhouse of Kensington, was presented by Messrs. Austin, Phillips, Gotto, and Lovick, pursuant to an order of the last court. They recommended that an 18-inch pipe sewer should be laid down to communicate with the Counters' Creek Sewer, at an estimated cost of 790*l.*, towards which Mr. Bird, the builder, was willing to contribute 300*l.*

Mr. Leslie expressed his approbation generally of the line proposed, but believed that it might be still further improved by passing it through a field on which 200 houses were about to be erected (the plan of which he produced), a straight line would be formed, and with a considerable saving of expense. He would, however, for the pipe sewer proposed, lay down a substantial brickwork egg-shaped sewer, which, by being submitted to public competition, might be executed at 10s. per foot. By the adoption of his plan, a permanent remedy would be found for every complaint at Kensington, at an expense not exceeding 1,200*l.*, a large proportion of which would be contributed by the owners of the adjoining property.

Mr. Austin, the consulting engineer, said the Counters' Creek Sewer was a most offensive ditch, and, for the sake of improvement, it was desirable to divert the sewage from it altogether. Taking a general view of the drainage area, therefore, he was not prepared to recommend any drainage into it as a permanent work.—Mr. Chadwick objected to commissioners having a local knowledge of particular districts submitting their views for the drainage of them without proper plans, as what might be proper for a single place might turn out

highly improper for a whole district.—Lord Ebrington was in favour of the plans as proposed by the surveyors.

The Earl of Carlisle said it was desirable to carry the scheme immediately into effect, as the state of the workhouse [recently set forth in THE BUILDER] would admit of no delay.—The motion for the adoption of the plan was then put and agreed to.

The Salaries of the Officers of the Commission.—Mr. Bullar then moved, pursuant to notice, "That from January 5, 1849, the salary of the order clerk be 800*l.* a-year, the salary of the consulting engineer 400*l.* a-year, and the salary of Mr. Phillips, as one of the chief surveyors 600*l.* a-year. The motion was agreed to *nem. con.*

On the motion of Mr. Chadwick, it was agreed "That it be referred to the Works' Committee to obtain plans, models, specimens of soil, pan apparatus, taps, and sinks, for the completion of house drainage and providing public conveniences, in accordance with the Act, and not to expend more than 60*l.* for that purpose."

On the motion of Mr. Bullar, seconded by Mr. Chadwick, the following resolutions were agreed to:—

"That no order be given to any contractor or other tradesmen, and no other expense be incurred, with reference to any work, experiment, or investigation, without the written certificate of the order clerk, the consulting engineer, or one of the chief surveyors, of the propriety of such order or expense."

"That it be an instruction to the Finance Committee, while it continues, to require and receive, as regards orders given and expenses incurred before March 15, 1849, inclusive, the certificate as to its propriety of the officer under whose supervision the work, experiment, or investigation in question was conducted; and as regards orders given and expenses incurred with reference to works, experiments, and investigations after that day, the certificate as to its propriety of the order clerk, the consulting engineer, or one of the chief surveyors."

The Committee Question.—On the motion that certain committees appointed provisionally at the last court be confirmed as orders of court,

Mr. Leslie rose and said that on the subject of these committees they had got the opinion of the law officers of the Crown. They had also got the resolutions and a protest against them, and he wished to know which was the correct view of the case. They were now called upon to take a long string of resolutions into consideration, and were they to pass them, in a week or two they might find that they were acting illegally again. To guard against such an occurrence, he felt it to be his duty, painful as it was, to move as an amendment, that the resolution proposed, with the protest that had been signed against them by four commissioners, be referred to the law officers of the Crown.

Mr. E. Lawes seconded the amendment.

Lord Ebrington was opposed to the reference of questions not involving points of law, but of policy, and believing the present question to be one of policy he should vote against the amendment.

Mr. Bullar was not about to give his opinion as a lawyer, as he had before declined being the legal adviser of the Commission. However, since the last court he had taken the opinion of a friend residing in the Temple, and whose intelligence he believed to be quite equal to that of the Attorney and Solicitor General (as we understood), and with him they went word by word through the orders, comparing them with the statute; and it was his friend's decided opinion that these orders were quite legal. Another friend, too, to whom he had submitted them had come to the same conclusion, except as to the 3rd rule, in which a question of legality might possibly arise. He (Mr. Bullar) had no wish to criticise the protest, but he felt assured that if he sat down for the opposite side he should find no difficulty in taking 500 objections, every one of which should be as valid as those contained in the protest.

Mr. Chadwick protested against the impression that anything had been going forward that was illegal. A great deal had been said about being taken into the Court of Queen's Bench by *certiorari*. He thought on that subject gentlemen would be very unwilling to risk their own money. That the public money had been culpably misapplied in the waste of the time of the Court he believed no impartial man entertained a doubt; and as to the law of the case, he never heard of any so fundamentally bad as had been opposed to the proceedings of a sub-division of labour. With regard to the reference of these orders to the law officers of the Crown, he (Mr. C.) should as soon think of referring to the Attorney-General on the construction of a water-closet as on any one of these regulations.

After some further discussion, the amendment was put and negatived by a majority of 12 to 2, and the confirmation of the appointment of the committees was agreed to.

The Ordnance Survey.—A lengthy report was received from the Ordnance Survey Committee, which set out by giving a number of questions to Capt. Yolland, of the Royal Engineers, on the practicability of increasing the three-mile radius to a scale of 10 feet to the mile, for the purpose of laying down the details of house drainage, with his answers thereto. It also stated the fact, that although the estimated cost of the survey was 24,000*l.*, the work would be completed for 3,000*l.* within that amount, and 5,000*l.* below the estimate given in by the civil surveyors.

Sir H. de la Beche said it was very important that they had been able to save so large an amount, as it would nearly enable them to engrave the plates, and to form blocks of houses. Without much trouble they would be enabled to enlarge such portions of the survey as might be desirable from time to time. The work of the survey had been one of extreme success, and might, if necessary, be consulted by persons laying out property, and for other purposes. He believed that when their labours were closed, it would be found that the interests of the public had been well protected.——Mr. Chadwick believed that the engraving of the plates would be executed at a cost of 6*l.* per sheet, in a manner superior to that of the Ordnance maps at 10*l.* per sheet.——The report was then received, and, after some works of emergency were ordered, the court adjourned.

Miscellanea.

THE SAXON CHURCH AT STOWE.—The nave foundations are now under repair with Yorkshire stone cramped together and laid in cement. It is said, too, that Archdeacon Stonehouse has entered into contracts for the nave and chancel repairs. Unfortunately, however, the parishioners appear to be restive under the anticipated infliction of a church rate for a system of repair carried out on one principle, while an alleged preference is given to another; so that between two extreme and opposing lines of procedure, it is possible that justice may fail to be done to this venerable mother church. Those who supply the rate appear to be mere utilitarians—or rather, we may say, necessitarians—who are only willing to vote for "necessary repairs," while the executive has an eye to a special system of alteration and adornment in combination with the mere prop work, but without the sympathy of his constituents. "For the restoration of this old church," says a contemporary, "a public appeal should be made, and the repairs and restorations should be under the direction of some experienced architect."

PORTABLE STEAM-ENGINES.—The *Scottish Agricultural Journal* describes a farm steam-engine at work near Edinburgh. It is of four-horse power, and drives a six-horse thrashing mill. In length it is 8 feet, including fire-box, boiler, smoke-box, and carriage, which latter is constructed of timber, bound with iron-work, and placed on iron axles and wheels; the fore carriage working on an axle, so as to admit of its being easily turned. The breadth over the axles is 6 feet, and the height to the top of the driving-wheel 8 feet. The height of the chimney is 15 feet, but when the engine is not at work, it is lowered by a joint at 10 feet from its summit, into "a saddle." The boiler is tubular, and can be easily repaired, and the smoke-box removed, so as to clean out the soot of the chimney and the tubes: means are used to prevent any issue of sparks from the chimney. The driving wheel is about 5 feet in diameter. One of the boiler tubes is made of softer metal than the others, so that, in the event of neglect or stupidity in overloading the boiler, this tube will give way and extinguish the fire, thus preventing the chance of explosion. The engine, it is said, can do all the work generally executed by manual or bestial power on the farm steading, and may be employed in pumping water, making tiles, or sawing wood; and being "a moveable subject," it can be "sold, alienated, or disposed of" at pleasure, or used jointly by a number of farmers.

GIRDER-BRIDGE AT BARNES.—An accident occurred here lately by the giving way of a winch on a travelling frame which crosses the Thames where a new iron girder-bridge is forming, to continue the loop line from the Barnes station of the Richmond Railway to Twickenham. A girder of seven tons weight had been raised from a barge and lowered to within three inches of its place, when the connecting-rods and timber arm gave way, and the winch and platform fell, when one of three workmen jumped into the river, and was carried down with the tide and lost.

CALICO BY THE MILE. — VERY LONG CLOTH.—The cylinder printing machines in Messrs. Hoyle's print works, Manchester, print a mile of calico in an hour! If fifteen of these machines work uninterruptedly for ten hours each day, and for six days in the week, they would be able to print cotton dresses in one such week for one hundred and sixty-two thousand ladies! According to the *Birmingham Journal*, the actual number of miles of calico printed by this firm alone in a single year exceeds ten thousand, one fourth more than the diameter of our planet.

GAS MONITOR.—The assistant-secretary of the Baths and Washhouses for the Labouring Classes, Mr. Woolcott, has written to us to say that the advertisement in THE BUILDER of last week, which states that the use of the gas-light monitor has effected a saving of 10,000 cubic feet of gas, in six weeks, at the model establishment, Goulston-square, Whitechapel, is incorrect: but as the note goes on to say that the monitor is no doubt useful in regulating and saving the consumption of gas, and that the committee are about to have more of them fitted up, we do not see the value of the contradiction.

THE ROYAL CYCLORAMA.—We spoke in terms of commendation of the Cyclorama of Lisbon's Destruction by Earthquake, at the Colosseum, when it was first opened, but its effect upon us then was less powerful than it was on a second visit lately. Mr. Bradwell has the machinery more under control now than at first, especially for the management of the lights, on which much depends. The sunrise in the opening view at the mouth of the Tagus is beautifully managed, and the effect of the storm is appalling. We were somewhat surprised to hear that neither Her Majesty the Queen, nor the Prince, has yet seen this work. A visit from these illustrious personages, so well qualified to judge of its merits, and usually willing to give their countenance where it is deserved, would be a gratifying reward to those who have carried out this undertaking, and one which, considering the elegance of the building raised for the exhibition, the extent of the painting, and the costliness of the experiment, they might not unreasonably hope for.

MR. HENNING, THE SCULPTOR.—The *Art-Journal* for April contains an interesting sketch of the life of John Henning, sen., best known by his reduced and restored copy of the Elgin frieze, the chief intention of which is to raise a fund to engrave this work for the benefit of the sculptor. We cordially wish the scheme success. It was commenced by the late Mr. Freebairn, but went no further than one plate.

BUST OF FRANCIS BAILY. — At the annual general meeting of the Royal Astronomical Society, Sir John F. W. Herschel, Bart., presented to that body a marble bust of their late President, Francis Baily, D.C.L. (the gift of Miss Baily, his only surviving sister), with an appropriate address, which appears in the Society's transactions for February, 1849.

COST OF PIPES AND DRAINS.—The following is a list of tenders for 6,350 ft. of stoneware pipe, to be laid in Oxford, and 450 ft. of 3 ft. by 2 ft. 9 in. half-brick tunnel, in mortar, in the same line. The sizes of pipes were 4,100 ft. of 15 in., and 2,250 ft. of 12 in. Also a 15 in. cast-iron syphon-pipe, 20 ft. long, and a 9-in. wall, at each end of drain, for rest of mouth of pipes. Tenders opened on the 3rd of April.

For excavation and brick tunnel, &c.:—			
Yeoman, of London	£646	0	0
Winterbourne, of Oxford	534	0	0
Adams, of Oxford	520	0	0
Hope, of Oxford	465	6	0
Treharne, of London	459	0	0
For pipes only:—			
Smith, of London	856	0	0
Stiff, of London	814	0	0
Doulton, of London	803	1	0
Green, of London	798	14	0
Doulton, of St. Helen's	760	0	0
For the whole work:—			
Pearce	1,300	0	0
Treharne, of London	1,253	0	0
Dethick, of London	1,247	0	0
Richards	1,245	0	0

Treharne's tender for groundwork, &c., accepted; J. Doulton, of St. Helen's, accepted for the pipes.

Projected Works.—Advertisements have been issued for tenders,—by a date not specified, for the erection of a new pauper lunatic asylum (in the neighbourhood of Devizes), for the county of Wilts; also for a large quantity of cast-iron columns, sashes, and joists, to be used in the above erection; by 18th inst., for the erection of a new chapel for the Bridge Union; by 18th inst., for sundry works required in reinstating the dwelling-house and warehouses recently destroyed by fire in Addle-street, Aldermanbury; by 17th inst., for alterations and additions to Hampstead Workhouse; by 20th, for the erection of a Sunday school to be attached to Beresford Episcopal Chapel, Walworth; by a date not specified, for the erection of the chapel, catacombs, cloisters, lodge, &c., at the Leicester Cemetery; by 10th, for the rebuilding and restoration of Kingstone Church tower, Herefordshire; by 14th, for the construction of the criminal court and other works at Cardiff; by 11th, for the erection of St. Augustine's new national schools, Bristol; by 13th, for the building, &c. of a lock-up at Alston; by 9th, for forming, culverting, &c. four new streets at Birmingham; and by 17th, for the supply of wrought-iron wheels, springs, bar-iron, oak and teak for waggons for Lancashire and Yorkshire Railway.

An Irish Speculation under English Auspices.—It is proposed, says the *Irish Railway Gazette*, to extract the potash from the granite stone extending over a district of 70 miles between Dalkey and Wexford, whereby, with an outlay of 10,000*l.* capital, it is expected that a gross revenue of 40,000*l.*, to be chiefly expended in labour throughout the Kingstown district, may be realised by the sale of 2,000 tons of potash at 20*l.* per ton in place of 40*l.*, the price of that imported from America; and that moreover a further sale of the article may also be pushed in America itself. Of course, as in preparing bread out of sawdust, or soup out of whinstones, it is by means of proper chemical and other materials and operations that this, it may be much more hopeful, project is to be carried out. The potash which it is designed to extract is that which pervades the external surface of the stone. Valuable chemical substances, we all know, have been extracted from shale and other mineral strata. All, of course, must depend on the relative value of the result when compared with that of the materials and labour employed.

Important to Railway Contractors.—On Tuesday last, at the Court House (before J. Stanhope, J. Thornely, and T. Taylor, Esqrs.), the surveyors for the township of Denby obtained a summons against the Lancashire and Yorkshire Railway Company to recover compensation under the Railway Clauses Consolidation Act, for the injury done to the roads in the township of Denby, in the making of the branch line of railway from Huddersfield to Penistone, comprising a distance, to which injury had been done, of upwards of ten miles of road. Mr. Barret, of Wakefield, solicitor, appeared in behalf of the surveyors, and Mr. Tyas, of Barnsley, and Mr. Dransfield, of Penistone, solicitors, appeared in the interest of the railway company. After a very lengthened inquiry, the magistrates made an order on the company to make the necessary repairs to the roads within the space of one month, and in default thereof the magistrates imposed the penalty of 5*l.* per day, pursuant to the above-mentioned act.

The Fire Annihilator.—Mr. Phillips' fire annihilator has been dug up again to afford a subject for one of the Friday evening meetings, at the Royal Institution. As we have before said, we cannot understand the policy of the inventor of this machine, who contents himself with having it talked about periodically, and gives no opportunity for its practical application.

Still Blind.—Tenders for the taking up the old locks at Maidstone, and putting down new; Mr. Whichcord, of Maidstone, architect.

		Extra work.
Tassell, Maidstone..	£3,270 0 0 ..	
Balston, London ..	2,800 0 0 ..	£62 4 0
Diggle, Maidstone,.	2,450 0 0 ..	
Wood, Gravesend ..	2,120 0 0 ..	170 0 0
Jarvis, London	1,746 10 0 ..	41 10 0
Sutton, Maidstone (accepted)	1,376 10 0 ..	22 0 0

Institution for the Deposit of Works connected with Architecture.—I am highly gratified by your correspondent's remarks on the want of an Institution of Practical Science connected with building. Some time since I attempted to effect the same object at the Mechanics' Institution of Hastings, by medals and rewards, and I shall have great pleasure in assisting to support an institution for the purpose in London, by an annual subscription of 5*l.* I give you my name.—A Constant Reader.

Bells Abroad.—Mr. Reeves, of New York, has made a valuable improvement in fire bells. The great difficulty to be obviated was in repeating the blows of the hammer in the one place, by which the bell was generally cracked. This he has done by fixing the bell on a ratchet wheel, which causes it to revolve at each stoke of the hammer. The hammer is swung by a lever, and strikes in the same place only once in every 240 strokes.——The Roman Constituent Assembly has decreed that all church bells which are not strictly necessary shall be melted down for cannon! Those of the cathedrals, parish churches, and such as are valuable in point of art, are excepted,—at present.

The Tron Steeple at Glasgow being out of repair, a small part of the ashler work gave way, when some of the town council coolly proposed to save all future trouble and expense by razing this characteristic old feature of the Trongate to the ground. Bailie Orr indignantly expressed his astonishment at such a proposal, and the Lord Provost warmly concurred in the bailie's protest. The proposal itself accordingly fell to the ground, and the steeple was forthwith ordered to be repaired by the Finance Committee.

The Iron Trade.—It has been determined by the ironmasters at a recent preliminary quarterly meeting, that the puddlers and other workmen shall for the future participate in the nominal advances of price that may be declared at each meeting; and accordingly, as an earnest of the carrying out of a principle which cannot but tend to induce something like respect for the quarterly price decisions if faithfully carried out, an advance in puddlers wages of 6d. per ton on the head of the advance of price, 20s. per ton, declared in February, is now decided on. Of course if the workmen are to benefit by every rise in price, they must expect an equivalent reduction of wages whenever a fall may hereafter happen in place of a rise.

Burials in Towns. — On Wednesday evening a meeting was held at the old Crown and Anchor, in the Strand, to petition Parliament for the immediate closing of burial places in cities and towns. Lord Dudley Coutts Stuart, M.P., took the chair; Mr. Mackinnon, M.P., Mr. G. A. Walker, Mr. Ivat Briscoe, and others spoke, and there were from 800 to 1,000 persons present. It was the most important meeting on the subject which has yet taken place, and shewed clearly the hold the question is beginning to take on the public mind. Mr. Walker spoke with the earnestness of one who feels his subject deeply.

Piracy of Registered Designs.—We learn from the *Sheffield and Rotherham Independent* that a manufacturing firm at Sheffield has been awarded by the magistrates 15*l.* and costs, payable by another manufacturer, for the infringement of a registered design for a candlestick, which was alleged to have been taken originally from some of the French patterns published from time to time in the *Art Journal*. The imitation, also a registered design, was varied in the style of ornament.

Manchester Parks' Testimonial.—Mr. Malcolm Ross and Mr. Edward W. Watkin, by whom the project was carried out, as Hon. Secretaries to the Parks' Committee, were lately presented, the former with a silver-plated épergne, and the latter a silver tea-service, in the presence of the Bishop and Mayor of the city, and a numerous assemblage, at a *dejeuner à la fourchette* given by the Mayor in his parlour in honour of the occasion.

Foreign Window Glass.—We understand that the importations at the present time of window glass, especially from Belgium, are very large. One vessel, the *Princess Victoria*, has just arrived in the river, from Antwerp, with 990 cases of the article on board, consigned to a firm in the metropolis.

Church Leasehold Property.—It is but little known that a commission is now sitting to collect information and hear the representation of parties, on the proposal for the settlement of the question between the church and the lessees holding property under the different deans and chapters. A meeting has been held in London on the subject, at which the Duke of Richmond presided, when a committee of members of both Houses of Parliament was appointed for the purpose of communicating with the lessees of church property, in order to obtain and select evidence to be submitted to the Royal Commission now sitting.

NOTICE.

"Buildings and Monuments, Modern and Mediæval," being Illustrations of recently erected Edifices, and of some of the Architectural Works of the Middle Ages, with Descriptive Particulars. Edited by George Godwin, F.R.S., Fellow of the Royal Institute of Architects, &c., &c., &c.

Under the above title it is proposed to publish, in bi-monthly parts, price 2s. 6d. each, the principal Illustrations of Modern and Mediæval Buildings which have appeared from time to time in The Builder, with their accompanying descriptive particulars. Each part will contain about eight plates, folio size, and eight pages of letter press, with plans and details. The engravings will be printed separately, with care, on a tinted paper.

The first part will be issued in time to be forwarded with the magazines for May 1, and will contain:—

Her Majesty's Marine Residence, Osborne; with Plan.
The Carlton Club House, Pall Mall.
Church of St. Isaac, at St. Petersburgh; with Details.
Kensington Union Workhouse.
The Liverpool Branch Bank of England; and Details.
The New Throne, Canterbury Cathedral.
The North Porch, Restored, of St. Mary Redcliffe, Bristol.
The Interior of Lincoln's-Inn Hall.

Persons desirous of becoming Subscribers, are requested to forward their names to the office of The Builder.

TENDERS

For the erection of nine small houses at Walham-green; Mr. C. Lahee, architect, opened in the presence of the parties tendering:—

Symons, Chelsea	£3,437 0 0
Burgess, Wardour-street	3,380 0 0
Todd, Chelsea.....	3,319 10 0
Watts, Motcomb-street	3,229 0 0
Underhill, Chelsea	2,595 0 0

For rebuilding the parish church of St. Edward, Romford; Mr. J. Johnson, architect:—

Trego	£8,490
Myers	6,800
Piper.....	6,687
Curtis, Romford.....	6,655
Kelk.....	6,190

Quantities not furnished.

For erecting four villas at Battersea, for Mr. C. J. Spicer:—

Locke and Nesham	£3,535
Hammond and Hill	3,457
Manafield and Son	3,440
Nicholson and Son	3,400
Trego	3,336
Harmer	3,329
Gammon	3,223
Cooper	3,139

Tenders opened at Wimborn, on the 29th ult., for building the new Grammar Schools and masters' houses. First division comprises bricklayer, excavator, plasterer, tiler, and slater; second division, mason and paviour; third division, carpenter, joiner, smith, ironmonger, bellhanger; fourth division, plumber, painter, glazier, and paperhanger:—

	First Division	Second Division	Third Division	Fourth Division
	£	£	£	£
C. Smith, London....	3,304	2,643	2,800	945
J. Jackson, do.	2,970	2,054	3,004	778
Simmonds, Wimborn	2,944	2,620	2,735	826
Plowman and Luck ..	2,792	2,607	3,125	704
G. Brown.....	2,756	2,583	2,858	755
Walker and Soper, London.....	2,695	2,800	2,394	697
J. Scorer	2,691	..	..	..
G. Scorer.....	2,654	..	..	..
Gover and Son	2,528	2,193	2,872	834
Pollock and M'Lennan, London.....	2,473	2,134	2,863	705
Green	2,464	2,010	2,975	981
J. T. Taylor, London..	2,309*	1,950*	2,400	580*
Beavans	..	2,175	..	..
Nott	..	1,995	..	..
S. Colman.....	..	..	2,816	..
J. Bugden	..	..	2,323*	..
Ellgood.....	..	..	..	842
J. Sloper, London....	..	..	..	897
J. Ricks	..	..	..	696
Ellgar	..	..	..	845
S. Wallan	..	..	..	687
M. Hall, London	..	..	..	651
H. Hall.....	..	..	..	626

* Accepted.

MEETINGS OF SCIENTIFIC BODIES

Held during the ensuing week.

TUESDAY, APRIL 10.—Freemasons of the Church, 8 P.M.

WEDNESDAY, 11th — Society of Arts, 8 P.M.; Graphic Society, 8 P.M.

FRIDAY, 13th. — Archæological Association, 8½ P.M.; Archæological Institute, 4 P.M.

TO CORRESPONDENTS.

"*Size of Drains.*" — Several correspondents complain bitterly, that while the Commissioners of Sewers forbid the use of drains more than 4 inches in diameter, they will not take the responsibility of any derangement in consequence.

"*Copper Bronze Powder.*"—A correspondent wishes to know "the method of making copper bronze powder. I have tried the common receipts, viz., by placing bars of iron or pieces of zinc, into a solution of the sulphate, or nitrate of that metal, but this changes so rapidly into the red, or black oxide, as to be perfectly useless."

"*Constantinople.*"—A correspondent asks "whether the water, which is used in Constantinople, and brought from the forest of Belgrade, is raised to the level of Constantinople by the action of capillary attraction, in the numerous upright pipes, standing between the reservoir at Belgrade and the reservoir at Constantinople, or by the action of the syphon?"

Received. — "T. S.," "J. H.," "R. L.," "E. T. B.," "L. C." (tenders for the "Middle Level Drainage" have not reached us); "Surveyor" (there are no published precedents: so much must depend on circumstances); "G. W.," "E. K. D.," "A Miner" (we agree with our correspondent in considering *choke*-damp not explosive. The expression of Sir H. Delabeche may have been misunderstood, or was inadvertent); "E. B." (we have not had time to call); "G.N." (we cannot afford the time at this moment); "K. and Co.," "Constant Reader," "J. and Co." (we are sorry our correspondents were inconvenienced); "Scrutator" (urges that a *brick* sewer for Kensington, might be formed for less money than drain *pipes* will cost); "A. P.," "Gerard," "W. H." "W. B. C." (we have not heard that competitors have received any announcement from Dundee); "Blackwood," "Ecclesiologist," "Journal of Design," No. 2., "Remarks on Entrances to Docks," by J. B. Redman; "The Ecclesiastical and Architectural Topography of England," Part II. Berkshire, J. H. Parker; "Paper on Hot and Cold Blast Iron," by H. Hartop.

"*Books, Prices, and Addresses.*"—We have not time to point out books or find addresses.

ADVERTISEMENTS.

MONEY ADVANCED at 5*l.* per Cent.—The MAGNET BUILDING and INVESTMENT SOCIETY.—No Discount on anticipation of Shares.—Bidding for Shares and Redemption Fees abolished.—Fixed Termination of Society.—The full Value of Shares advanced at 5*l.* per Cent.—Shares 25*s.* each.—The First Subscription Meeting will take place at the George and Blue Boar Tavern, Holborn, on MONDAY, the 16th April, 1849, at Seven o'Clock in the evening.—Prospectuses to be had of the Secretary, Mr. COX, 1, Clement's-inn; the Treasurer, Mr. PETERS, 43, Bell-yard, Temple-bar; and at the above Tavern.

SNOXELL'S PATENT SAFETY REVOLVING WOOD SHUTTERS, Manufactory, 26, REGENT-STREET and 131, CHANCERY-LANE. Patent sealed on the 4th day of February, 1845, for Fourteen Years, for Improvements in Revolving Shutters of WOOD and IRON, consisting of Six Methods of Raising and Lowering Shutters, without Machinery, and Two for Hinging and Sheathing the Edges of Wood Laths with Iron.—The Patentee having fixed up some hundreds, will feel pleased in forwarding the Testimonials of Architects, Principals of large Establishments, and others, having them now in use, which fully guarantees the Patentee in stating they are beyond dispute superior to any other Revolving Shutter for durability, security, and simplicity, without the use of cog-wheel worm and screw gear, or any other complicated machinery employed by other makers.

BUNNETT and Co., ENGINEERS, Patentees of REVOLVING IRON AND WOOD SAFETY SHUTTERS, and of ORNAMENTAL METALLIC SASH BARS, MOULDINGS, &c., IN BRASS, COPPER, ZINC, &c. FOR SHOP-FRONTS, SKYLIGHTS, &c.

Shop-fronts completely fitted and fixed in a superior style, either plain or ornamental, also glazed with best plate glass. Strong moulded stallboards handsomely engraved. Metal works and machinery of all kinds in connection with banking-houses, shops, warehouses, &c. &c.

B. and Co. challenge competition as to either quality or price.

Estimates furnished and estimates given.

IMPROVED PATENT BENCH AND FLOORING CRAMPS FOR BUILDERS.

[SOLE LICENCEES FOR MARVIN and MOORE'S PATENT DIAGONAL GRATING].

Office of the Patentees, 98, Lombard-street, London; and at the Works, Deptford, Kent.

PAPER-HANGINGS.—JEFFREY, ALLEN, and Co., solicit the attention of Builders and the Trade generally to their extensive STOCK of PAPER HANGINGS, which, from the use of steam-power and recent improvements in the application of machinery, they are able to offer at remarkably low prices.—Kent and Essex Yard, 119, Whitechapel.

PAPER-HANGINGS, MANUFACTURED UNDER HER MAJESTY'S ROYAL LETTERS PATENT.

E. T. ARCHER, 451, Oxford-street, solicits an inspection of the various DECORATIVE PAPERS, fitted up in panels on the walls of the extensive range of apartments, built expressly for that purpose; where also is kept an extensive stock of every variety of Paper-hangings, at the lowest possible price and of the best manufacture, in English and French Designs, by the best Artists; and where may be had a large assortment of French and other Continental Paper-hangings always on hand.—Builders and large Consumers are particularly invited to the above.—451, Oxford-street.

ARCHITECTS', BUILDERS', and GENERAL FIRE and LIFE INSURANCE COMPANY, 69, Lombard-street, London.

CHAIRMAN, SYDNEY SMIRKE, Esq., A.R.A.

TRUSTEES.

T. L. Donaldson, Esq.	A. Salvin, Esq., F.S.A.
S. Grimsdell, Esq.	G. Smith, Esq., F.S.A.

The rates for both Fire and Life Insurances are as low as can with safety be taken. Those for Life Insurance may be paid either yearly, half-yearly, or quarterly; one-half the annual premium may be left unpaid for seven years, or one-third to the end of life. Thus large sums may be insured at the smallest present outlay.

Prospectuses, forms of proposals, &c., may be had at the Office, 69, Lombard-street, or of the Agents.

JOHN REDDISH, Manager.

ASYLUM DOMESTIC and FOREIGN LIFE OFFICE, No. 72, Cornhill. Established 1834.

CHAIRMAN—Lieut.-Gen. Sir James Law Lushington, G.C.B.

DEPUTY-CHAIRMAN—Charles William Hallett, Esq.

Facilities originated by the Asylum Company:—Insurance of Bonus in Mutual Offices. Low Premiums for every year of Life, on Ascending Scales, and for the long term of twenty years. Ascending Scales, ceasing at pleasure of the Assured. Alternative, by which part of the whole Life Premium remains unpaid, at 4 per cent. interest. Insurances on Invalid and deteriorated lives. On Naval and Military Officers at fixed rates for all countries. On persons voyaging, travelling, or resident abroad. And, the virtual completion of Policies in a single day.

GEO. FARREN, Esq., Resident Director.

CHEAP ORNAMENTAL GLASS.—I beg to inform my friends and the public, that I have now completed a new ENGINE, and, owing to the facility with which I can execute orders, I am enabled to reduce my former prices considerably. The prices are now from ONE SHILLING PER FOOT SUP., and borders from SIXPENCE PER FOOT RUN. A large quantity of the cheapest patterns always in stock. Embossing and painted work on the most moderate terms.—CHARLES LONG, No. 1, King-street, Baker-street, Portman-square.—Cash only.

E. and W. H. JACKSON beg to call the attention of Builders and the trade to the reduced prices of their PATENT PLATE GLASS, which, from its cheapness, is now superseding crown in all respectable dwelling-houses. BRITISH and ROUGH PLATE, CROWN, SHEET, STAINED, and ORNAMENTAL GLASS, supplied of the best manufacture, and at the lowest terms. List of prices, estimates, and every information can be had on application at their warehouse, 313, Oxford-street.

PLATE GLASS.—THOS. MILLINGTON begs to inform the trade that he has now ready for Sale, a large quantity of BRITISH PLATE GLASS, which he can offer at the following low prices:—In sizes, under 1 foot super, 1*s.* 2*d.*; under 1 ft. 6 in., 1*s.* 6*d.*; under 2 ft., 1*s.* 9*d.*; and under 3 ft., at 2*s.* per ft. super. Also, Roughed Plate, in various substances, from 1-8th in. upwards. Observe the address—67, BISHOPSGATE-STREET WITHOUT.

SOHO PLATE, CROWN, SHEET, PATENT PLATE, ORNAMENTAL, and LOOKING-GLASS MANUFACTORY, 28, Soho-square, London.

PLATE GLASS.—Architects, builders, and the trade generally will find the stock of plate-glass in this department of the very best colour and finish; and in order to meet and encourage the increasing demand for glazing qualities, a special price will be given for all orders upon application.

LOOKING-GLASS AND FRAME DEPARTMENT.—Upholsterers and carvers and gilders will find a large and very valuable stock of carved and composition frames, &c., fitted with silvered plate glass, and ready for immediate delivery (either gilt or ungilt). The stock of mahogany dressing and cheval glasses is also most extensive, and of the very best quality and design.

PATENT PLATE GLASS.—A reduction of 40 per cent. has been made upon this glass, so well adapted for glazing houses of the first-class, and for prints, &c. The new tariff of prices is ready, and will be forwarded upon application.

ORNAMENTAL GLASS.—A very choice stock of superior designs is constantly kept ready for delivery,—the quotations ranging from 1*s.* 3*d.* per super foot.

CROWN, SHEET, AND HORTICULTURAL GLASS.—A printed card of prices for these descriptions of glass, which are delivered in crates as manufactured, or cut to sizes ordered, can be had upon application.

THE UNION PLATE GLASS COMPANY beg to call the attention of architects, surveyors, builders, large consumers, and the trade generally, to the quality, colour, and substance of their highly-finished glass, and as the discounts vary according to size, they prefer giving a special estimate for each quantity required. To encourage the use of Plate Glass for glazing purposes, the price is considerably reduced, which will, for its durability and appearance, insure the preference to any other description.

ROUGH PLATE GLASS supplied for skylights, warehouses, workshops, and flooring, 3-8ths, ½, ¾, and 1 inch thick.

London Warehouse, 90, Hatton-garden, Holborn.

H. CHRISTIE, Agent.

CHAS. WM. WATERLOW, MANUFACTURER

of Sashes and Frames, and Joiner to the Trade, 121, Bunhill-row, Finsbury-square.—Well-seasoned materials, superior workmanship, lowest prices.—Upwards of 400 DOORS, and a large variety of Sashes and Frames, always on sale. Glazed goods securely packed for the country. Steam-struck Mouldings in any quantity.—N.B. This Establishment is worth the notice of all engaged in building.

By Her Majesty's Royal Letters Patent.

GLASS VENTILATORS FOR WINDOWS.

BAILLIE'S PATENT Transparent SLIDE VENTILATORS, supplied at a reduction of 40 per cent. from the original Tariff. Their extensive and successful application to public offices, bed-rooms, and the cure of smoky chimneys, prove their great utility. To be seen in action at Edward Baillie's Stained Glass Works, 12 a Cumberland Market, Regent's Park.

Designs and estimates for church and ornamental windows forwarded on application as above, where specimens in every style are on view.

HURWOOD'S PATENT APPARATUS for MOVING and FASTENING WINDOWS, &c.

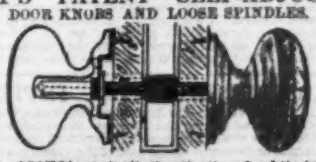
GENERAL DESCRIPTION.—This invention recommends itself in all its applications by its simplicity, efficiency, and certainty of action, and entirely dispenses with all pullies, weights, cords, springs, sectops, fastenings, &c. A principal feature in the invention is the application of the screw, or worm working into a wheel or rack, as a prime mover. The apparatus moves with ease and certainty; is very durable, not likely to be out of order; is perfectly secure in every position, and is applicable to conservatories, French casements, folding shutters, stables, ventilators, skylights, ship scuttles, deck and stern lights, and to all descriptions of windows, and is particularly adapted to public buildings, where security is an important object, as in lunatic asylums.

Further particulars may be had upon application to the Patentee, and also the terms upon which licenses are granted.

*** Illustrative Catalogues may also be obtained from the Patentee, Ipswich, by inclosing twelve stamps, to cover postage.

By Her Majesty's Royal Letters Patent.

PITT'S PATENT SELF-ADJUSTING DOOR KNOBS AND LOOSE SPINDLES.



HART and SONS beg to invite the attention of architects, builders, and others, to their Door Furniture, mounted for PITT'S PATENTED SPINDLES. The knobs are stronger, more durable, and more elegant in form, than those in ordinary use, as the spindles, being loose, do not require the objectionable side screw. They are more readily fixed, are suitable for every description of look now in use, and, as they adjust themselves to doors of different thicknesses, without alteration, are particularly adapted for the country or for exportation. They are made (to suit every style of decoration) in China, crystal, amber, and opal glass, buffalo, horn, ivory, ebony, brass, &c., en suite with finger-plates, bell-pulls, levers, &c.—May be obtained of all Ironmongers; or of the proprietors and sole manufacturers, HART and SONS, Wholesale Ironmongers, 33, 34, and 35, Wych-street, Strand, London.

N.B. PITT'S PATENTED SPINDLE, being the only one that does not require a screw in the side of the knob or mounting, the use of any lock furniture without such side screws would be an infringement of the patent.

STEAM-ENGINE.—A new high-pressure Horizontal Engine, with tubular boiler, 14-horse power, and of the most perfect workmanship, is TO BE SOLD for 300*l.* net cash.—Further particulars may be had at the Phœnix Foundry, 128, Dover-road, where the engine may be seen after the 6th April.

TO ARCHITECTS AND GENTLEMEN.

TO BE SOLD, for a moderate sum, a massive METAL EAGLE, elaborately chased, designed for a devotional reading-desk. Any gentleman requiring such for a church will find this a favourable opportunity. To be seen at SNELL and Co.'s, Upholders, 27, Albemarle-street, Piccadilly.

FAVOURABLE OPPORTUNITY of MAKING a FORTUNE.—Any person who is desirous of making a fortune in a respectable way, without embarking capital, may hear of a favourable opportunity, by addressing himself, by prepaid letter, to Messrs. S. and V., Stone-street, Bruges, Belgium, when full particulars will be gratuitously forwarded.

WORCESTER ENCAUSTIC TILE WORKS.—To clear the remainder of the STOCK the Proprietor has determined on reducing the price of ornamental pavements to 1*s.* a square foot.—Apply at the Works, Palace-row, Worcester.

N.B. Designs for pavements sent by post to suit the space intended to be covered, and the date of the building.

FIRE BRICKS.—To Builders, Gas Companies, Engineers, &c. &c. WARD and CO., Honduras Wharf, Bankside, have now on hand an extensive and well-selected Stock of every description of Fire Bricks, Lumps, Tiles, Clays, &c., used in Gas Works, Coke Ovens, Furnaces, Kilns, &c., which they are offering on very liberal terms to consumers, and the trade in general; also, Main Paviors, Stock Bricks, Patent Malting Tiles, Pan, Plain, and Ridge Do., Windsor and other Oven Tiles, Sand, Gravel, Lime, Cement, Windsor and other Loams, Red and White House Sand, Dutch Clinkers, Sanitary Pipes, and every article connected with general Building. Goods made to pattern on the shortest notice. Country buyers and consumers will find this the best and cheapest market.

TO ARCHITECTS, BUILDERS, AND RAILWAY CONTRACTORS.

BRICKS and TILES, plain and moulded, manufactured in a superior manner, from fine beds of clay on the Earl of Leicester's estate at Holkham, of red, blue, and Bath stone colours, both for plain and ornamental work. Specimens to be seen at Blashfield's Wharf, Commercial-road, Lambeth (near Waterloo-bridge), consisting of plain bricks of the usual size for building purposes, moulded bricks for forming Tudor chimney shafts, of various designs, label mouldings, cornices, copings, window sills, dressings for windows and doors, mullions, ridges, skirtings, &c. Also roofing and paving tiles of an ornamental character in the same materials. The moulded bricks are fully equal to the best specimens referred to under the articles "Brickwork," in Nos. 280 and 291, of "The Builder."

CAST-IRON PIPES, IRON WORK FOR OVENS, &c.

RAIN PIPES, &c.—F. A. TIDDEMAN, Purfleet Wharf, Earl-street, City, near Blackfriars-bridge, keeps a large stock of Rain Pipes, Heads, Shoes, Elbows, &c., half round and O. G. Gutters, Socket Pipes for Water or Gas, Flanch Pipes, Sash Weights, and other Castings; Iron Work for Baker's Ovens of every description, fitted complete, to be had in sets or in parts.—Prices equal to all competition. Contracts taken to any extent.

TO ENGINEERS, BUILDERS, PLUMBERS, &c.

RAIN-WATER PIPES, Heads, Shoes, and Elbows, half-round and O G Gutters, Sash Weights, Railing Bars, Sink Gratings, Air Bricks, close and open Coal Plates, Scrapers, Tile Lights, Balcony Panels, narrow and navy wheels, &c. CAST and WROUGHT IRON WORK for STABLE FITTINGS, viz.—Mangers, Hay-racks, Ramps, Cills, Stable Traps, Gratings, &c. GAS and WATER-PIPES, bends, branches, Tee pieces, syphons, and lamp columns; also hot-water pipes for heating buildings and hot-houses, and FLANGE PIPES, with all the usual connexions. A large stock of the above CASTINGS at very low prices, at JONES'S, Iron Bridge Wharf, No. 6, Bankside, Southwark.

TO BUILDERS, PAINTERS, &c.

TURPS, 3*s.*, Linseed Oil, 2*s.* 3*d.*, Boiled, 2*s.* 8*d.* per gallon; Lead from 20*s.* to 26*s.* per cwt.; Dryers 3*s.* 6*d.* the 7lb. tin; Putty 7*l.* per cwt.; Brunswick Green 24*s.* per cwt.; Size 1*s.* and 2*s.* per firkin; Whiting 1*s.* 3*d.*, Outr 7*s.*, Plaster 3*s.* 9*d.* per cwt.; Oak Varnish 8*s.* 6*d.*, and fine old Carriage 11*s.* per gallon; the largest copper-bound Distemper Brushes 2*s.* 3*d.* each; extra Stocks 2*s.*, at G. ARMSTRONG'S, 25, High-street, Islington, and 47, Fore-street, City.

LIGHTERAGE.—To Timber, Slate, Stone, and Coal Merchants, Saw-mill Proprietors, Contractors, and others requiring Lighterage.—CHARLES STRUTTON, Lighterman, &c., is willing to undertake Lighterage at the following low rates, viz.—Coals, 8*d.* per ton; Slates, Stone, &c., 9*d.* per ton; Deals, 2*s.* 3*d.* per 120; Thames Ballast, 9*d.* per yard; Timber, 4*s.* per float. Other Goods in proportion. Barges Let on hire.

34, Commercial-road, Lambeth, and Trinity-street, Rotherhithe.

IMPROVED BELLHANGING.—From the patterns, and on the much admired principle now in use at the Great Northern Hotel, Lincoln, where ONE BELL ONLY rings from upwards of TWENTY ROOMS; and any or all of the tablets which indicate the apartment or apartments from whence the bell was rung is replaced by one action of the servants' lever. Combining simplicity, certainty, and neatness. See the local newspapers. Address, Mr. J. MIDDLETON, High-street, Lincoln; or JOHN RAE, 150, Broad-street, Birmingham.

Information given. The trade treated with.

CROGGON'S PATENT ASPHALTE ROOFING FELT and INODOROUS FELT, for DAMP WALLS. Sold in rolls, 32 inches wide, price one penny per square foot. Also, Dry Hair Felt, for preventing the radiation of heat and deadening sound. Samples, directions, and testimonials sent by post, on application, to CROGGON and Co., 2, Ingram-court, Fenchurch-street, London.

TO ARCHITECTS AND BUILDERS.

CHUBB'S WROUGHT-IRON and FIRE- PROOF DOORS and FRAMES, for strong Rooms. A large stock of the above, of all sizes, made in the best manner, and of different strengths, fitted with CHUBB'S PATENT DETECTOR LOCKS, throwing from two to twenty bolts, constantly on sale, at very moderate prices. FIRE-PROOF SAFES of every size, and Patent Detector Locks and Latches for all purposes.—C. CHUBB and SON, sole Manufacturers, 57, St. Paul's Churchyard, London.

BUILDERS AND CONTRACTORS.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 113, Fore Street, City, Manufacturer, by Appointment, to Her Majesty's Honourable Board of Ordnance.

WRIGHT'S ORIGINAL PLASTER of PARIS and CEMENT.—Builders and others supplied as usual with this unrivalled Plaster, prepared by the original manufacturer, and of established reputation in the trade. The proprietor cautions the public against a spurious article piratically introduced as "Wright's Plaster" by a traveller lately in his employ, and requests attention to the address of the original works—3, Upper Ground-street, Blackfriars."

Just published, 8vo., price 1*s.*, or sent post free for 1*s.* 6*d.*

BIELEFELD'S TARIFF of PAPIER MACHÉ FRAMES, containing 114 Engravings; including the machine-made frame mouldings, which may be had in 12 feet lengths without join, or made up complete.

"The frames of Mr. Bielefeld possess the best characteristic of fine carving."—*Art Union Journal.*

"The work Mr. Bielefeld has perfected is one of remarkable elaborateness and beauty."—*Douglas Jerrold.*

By Her Majesty's royal letters patent.—The Works, 15, Wellington-street North, Strand.

WOOD PAVING.—The Directors of the Metropolitan Patent Wood Paving Company are prepared to EXECUTE ORDERS, on the shortest notice, for paving Railway Stations, Sheds, Wharfs, Yards, Porticos, School-rooms, Gateways, Forges, Workshops, Breweries, Stables, Barns, and Skittle-grounds. Their system of wood paving is admirably adapted for the above purposes, and is much in use.—Office, Belgrave Works Thames-bank, Pimlico.

GENERAL WOOD PAVEMENT COMPANY.—The durability, economy, and general advantages experienced from WOOD PAVEMENT, as applied to Railway Stations, Warehouses, Garden Walks, Stables, Forges, Schools, Barns, Kitchens, Cellars, skittle-grounds, Breweries, Printing-houses, Court-yards, Pathways, Corn Granaries, &c., &c., has caused its general adoption. In stables it almost entirely supersedes the use of straw, and ample testimony can be given of cures in horses, effected by the use of Wood Pavement in stables, in cases of lameness, beaten hoofs, grease, &c., &c., when no other means could. Prices from 4s. 6d. to 6s. 6d. per superficial yard, complete, according to depth.—Offices, No. 3, Ingram-court, Fenchurch-street, London.

PAVING, 2s. 9d. PER SQUARE YARD, Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.—Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN PAVEMENT OFFICE, 14, JOHN-STREET, ADELPHI.—N.B. Country Agents and Railway Engineers and Contractors supplied with the best bitumen for covering bridges and arches.

BATH STONE DEPOT, Great Western Railway, Paddington.—EDWARD FLUESTER, Agent for Job Pictor, Stone Merchant and Quarryman, &c. &c., begs to inform Builders and others, that he has REMOVED to the front of the Railway Station, and continues to supply Bath Stone of the best quality at the lowest prices.—Address as above.

BATH STONE.—RANDELL and SAUNDERS, QUARRYMEN and STONE MERCHANTS. The most approved kinds of Bath Freestone supplied to all parts of the kingdom. Depôts at the Great Western Railway Stations, PADDINGTON, CORSHAM, BOX, BATH, and BRISTOL.—R. and S. particularly invite the attention of Architects and Builders to their Corsham Down Stone, which is strong and sound in quality, is of beautiful colour and texture, and works much cheaper than any other stone. Prices, with cost of carriage to any locality specified, furnished on application to Randell and Saunders, 14, Orange Grove, Bath.

ANSTONE STONE WHARF, STANGATE.—Mr. GRISSELL has the honour to inform Architects and Builders that he has made arrangements for the SUPPLY of the ANSTONE STONE for all building purposes, and which can now be seen at the above wharf by application to Mr. W. G. WARDLE, of whom every information can be obtained.

N.B. The stone used in the erection of the New Houses of Parliament was supplied EXCLUSIVELY from these quarries.

ANSTON STONE, used for Building the New Houses of Parliament.—W. WRIGHT and Co. beg to inform Architects, Engineers, Builders, and others, the Anston Stone can be supplied in any quantity on the shortest notice. This valuable stone, so celebrated for its durability, colour, and texture, is well known, having been selected in preference to all others, by the Commissioners of Woods and Forests, for building the New Houses of Parliament. It is very superior for Monuments, Tombs, &c. &c.

W. Wright and Co. have made arrangements to have a stock always on hand at Brine's Marble and Stone Wharf, Horsfall-basin, Maiden-lane, King's-cross.—Any further information can be obtained on application to W. WRIGHT and Co., Anston, near Sheffield; or to T. SHARP, their Sole Agent in London, 27 Burton-crescent.

CAEN STONE, from the first Quarries of Allemagne. Depôt at the Whitby and Scotch Wharf, 14, Fore-street, Limehouse.—P. FOUCARD, quai des Abattoirs Caen (propriétaire des Carrières à Allemagne), begs leave to inform Builders, Architects, and others, that he has, on the above-mentioned wharf, the best stone ready to meet the demands of purchasers.—Contracts taken for any quantities.—Orders received by Mr. RASCHET, at 39, Stoney-street, Borough Market,—Cargoes shipped to order, from Caen, to any port.

CAEN STONE.—Original Sufferance Depôt, Norway Wharf, Greenwich.—W. TUCKWELL, Caen Stone Quarry Proprietor and Importer, begs to invite the attention of Architects, Surveyors, Builders, and others to the Stock of DRY SEASONED CAEN STONE on his Wharf, comprising 20,000 feet cube, which has been selected with judicious care, and is fit for immediate use. Shipments made to any port direct from his quarries at Caen.

N.B. Orders received at the wharf as above; also at the offices of Mr. R. A. WITHALL, Surveyor, 80, Cheapside, where further information and samples may be obtained.

CAEN STONE SPECIALLY SELECTED. LUARD, BEEDHAM, and Co., extensive Proprietors of CAEN STONE QUARRIES, Allemagne, Calvados Department, beg to solicit inspection of their Caen Stone for external and internal works. They continue their importations of the first quality, carefully selected at the quarries.

L., B., and Co. have on hand a large stock of the best-quarried stone, at their Depôt, Caen Sufferance Wharf, Rotherhithe, where samples and information may be obtained.—Shipments made direct from Caen to any part of the United Kingdom.

CAEN AND AUBIGNY STONE QUARRIES.—LUARD, BEEDHAM, and Co., beg to inform the Architectural and Building Profession generally, they are importing the above stone from Aubigny, near Falaise, Normandy; and from its general adoption (where known), are assured of its great utility.

Aubigny resembles Portland in colour and texture, but free from shell, flint, and other obstructions in working. Its durability may be known from its appropriation to lighthouses, dock and quay walling, and the Royal Chateau, Normandy.

L. B. and Co., have a large and seasoned stock at their Depot, Caen Sufferance Wharf, Rotherhithe, near the Lavender Dock Pier.—Orders executed with dispatch to any part of the United Kingdom.

PIMLICO SLATE WORKS.—GREAT REDUCTION IN THE PRICE OF SLATE!—Mr. MAGNUS has the pleasure to announce that a reduced tariff will be published on the 25th instant, and forwarded, on receipt of a postage stamp, to any part of the kingdom. Half inch slate slabs, planed 2 faces, with sawn edges, from 4 to 7 feet long, will be sold from 3½d. to 5d. per foot super., ¼ inch slabs from 5d. to 7d. ditto, and inch slabs planed 2 faces, from 6d. to 9d. per foot super. Enamelled boxed chimney pieces, variously marbled, hitherto priced at 40s. to 50s. will be sold from 25s. to 30s., suitable for openings 2 feet 10 inches to 3 feet 2 inches wide. Slate tanks, 3s. per foot cube, outside measure, on wharf, or 2s. 6d. delivered and fixed. Other articles reduced in proportion.—N.B. The finest slabs from Monmouthshire, Bangor, and Cornwall.

STIRLING'S BELVEDERE SLATE WORKS, Belvedere-road, Lambeth.—A reduced list of prices of the best WELCH SLATE SLABS, planed both faces, will be sent on application (post paid) being made, and inclosing a postage stamp. The prices are under those advertised for inferior slates.

SAMUEL CUNDY, Mason and Builder, PIMLICO MARBLE and STONE WORKS, Belgrave Wharf, Pimlico, begs to inform ARCHITECTS and the PUBLIC that he has availed himself of improvements in his MACHINERY, by means of which he is enabled to produce GOTHIC WINDOWS, MOULDINGS, PANNELS, &c. &c., at a very cheap rate, out of a superior stone from the west of England, as durable as any soft stone, and particularly sound.

S. C. has an economical method of dressing the above stone over, which produces, by the action of the atmosphere, a surface of crystalline hardness, and improves the colour.

FONTS from 8l. upwards. Specimens on view of the various styles.

First-rate ARTISTS retained for SCULPTURED and CARVED Works.

Vein Marble Chimney-pieces, of the best quality of material and workmanship, by improved machinery	40s.
Stone ditto, from	8s.

A variety on view in stock.

MEMORIAL CROSSES, MONUMENTS, TOMBS, HEADSTONES, &c., in great variety of design.

RESTORATION of CHURCHES. SAMUEL CUNDY having had much practice in this branch, is desirous of Estimating for Restorations.

CLERKS of WORKS have their particular attention called to the above establishment. Coats of Arms, Decorated Pannels, and other enriched works, promptly executed.

Every description of Stone or Granite work prepared, ready for fixing.—Delivered at the various Railways, and carefully packed in trucks.—Pimlico Marble and Stone Works, Belgrave Wharf, Pimlico

MARKET WHARF, REGENT'S-PARK BASIN.—Messrs. MARTIN and WOOD (late Scales and Martin) solicit the attention of Builders, Masons, and others, to their stock of Portland, York, and Derby Stone; also Bangor Slates, Lime, Cement, Plaster, Bricks, Tiles, Laths, Fire-goods, Fire-stone, &c., sold at the lowest possible prices for Cash. Portland Headstones, Ledgers, Steps, Landings, &c., cut to order on the shortest notice. Tarpaulings let on hire. A Stock of Northen's Drain Pipes, Syphons, &c., always on hand. Mortar, Lime and Hair, Fine Stuff, &c.

TERRA-COTTA, or VITRIFIED STONE WORKS, King Edward-street, Westminster-road, London.—M. H. BLANCHARD, from late Coade's Original Works, Belvedere-road, Lambeth, begs to inform the Nobility, Gentry, Architects, and Builders, that he has re-established the manufacture of that invaluable material, which has been successfully adopted by our eminent Architects and others, in the adornment of our noblest buildings, nearly 100 years has proved the imperishable nature of the material, the specimens of those times now exhibiting all their primitive sharpness.

Groups, statues, friezes, capitals, panelling, pinnacles, finials, terminals, Tudor, and other chimney shafts, balustrading, fountains, fonts, terras, vases, coats of arms, devises, and every description of architectural ornament, at prices in many instances nearly half the cost of stone.

Specimens of the material to be seen at the Office of "The Builder," 2, York-street, Covent Garden, and at the Works.

MARTIN'S PATENT FIRE-PROOF and ORNAMENTAL CEMENT—REDUCTION of PRICE.—The Patentees beg to inform their Friends and the Public that they have made arrangements which enable them to offer this invaluable cement at a considerably reduced price. It has now been before the public so many years, and has obtained so high a standing in the estimation of all who have used it, that it is unnecessary to comment on its merits. The Patentees, however, feel called upon to observe, that by its use—from the greater amount of surface which a given quantity will cover, and the small amount of labour required in working it, a saving of 25 to 30 per cent. is effected as compared with other cements for internal use. Specimens shewing its beauty, hardness, and applicability to all plain and ornamental purposes, may be seen; and the Cement in any quantity obtained of the Patentees, Messrs. STEVENS and SON, at their Plaster and Cement Works, 186, Drury-lane, London.—Agent for Liverpool.

Mr. GEORGE NEWTON, No. 6, Lawton-street, Bold-street.

PORTLAND CEMENT, solely MANUFACTURED by WILLIAM ASPDIN, Son of the Patentee.—Messrs. ROBINS, ASPDIN, and Co. request reference to No. 296, page 491; and also Nos. 294 and 295, pages 343 and 351 of "The Builder," for accounts of EXPERIMENTS on the strength of Portland Cements, whereby the great superiority of their Cement is manifest. This Cement has been proved for upwards of twenty years in the Thames Tunnel to resist the action of water; it is stronger in its cementitious qualities, harder, and more durable than any other description of Cement; it does not vegetate, oxydate, or turn green; nor is it affected by any atmospheric influence whatever the climate, resisting alike the action of frost and heat. It is manufactured to set in from five to sixty minutes. For all purposes that Cement is applicable the Proprietors challenge competition.—Orders received by Messrs. ROBINS, ASPDIN, and Company, at their Manufactory, Northfleet, Kent, and their Wharf, Great Scotland-yard, Whitehall; also by their Agent at the Depôt, 1, Back Goree, Liverpool.

PORTLAND CEMENT, as manufactured by J. B. WHITE and SONS, possesses all the properties of the best Roman Cement but has the advantage over that material of wholly resisting frost; and when used as a stucco it does not vegetate or turn green in damp situations, and requires no colouring. Employed as an hydraulic mortar for brickwork, it carries four to five measures of sand to one of cement, and is proved by trial to become harder and stronger in these proportions than Roman Cement with but one measure of sand. This superior connecting power, combined with its eminently hydraulic properties, point it out as the fittest material for building sea and embankment walls, the lining of reservoirs, cisterns, and baths, and for all those purposes where strength and a perfect resistance to water are required.

Manufacturers—J. B. WHITE and SON, Millbank-street, Westminster, and 36, Seel-street, Liverpool.

KEENE'S PATENT MARBLE CEMENT forms an exceedingly hard and indestructible Stucco, which may either be prepared for paint, or finished in imitation of stone, by the addition of Portland or other stone dust.

It is a cheap and efficient substitute in place of wood for skirting, architrave, and other mouldings, in its application for which purposes it checks the progress of Fire and the attacks of Vermin.

Patentees and sole Manufacturers, J. B. WHITE and SONS, Millbank-street, Westminster, and Seel-street, Liverpool.

JOHNS and CO.'S PATENT STUCCO CEMENT and PAINT.—The attention of Architects, Builders, Plasterers, Painters, Merchants, and the Public generally is solicited to the many advantages attached to these celebrated Materials, which, for their appearance, durability, imperviousness, utter resistance to frost or heat, and general economy, distinguish them from all other cements and paints, and fully justify the confidence reposed in them, as shewn by the numerous testimonials received from public bodies and private individuals of the first importance.—Prospectuses and particulars may be obtained from the sole agent, PHILIP HARE, at the Warehouse, 22, Steel-yard, Upper Thames-street.

ROMAN CEMENT, made according to the specification of Parker's Patent, may be had genuine of J. M. BLASHFIELD (late Wyatt, Parker, and Co.), Waterloo Dock Wharf, Commercial-road, Lambeth, No. 1, Irongate Wharf, Paddington, and at the Manufactory, Mill Wall, Poplar. Also Plaster, Mastic, Terras, Bricks, Tiles, &c.

VEINED AND SICILIAN MARBLE in Scantlings and Slabs of the first quality, just imported.

CUTTLEHILL FIRE CLAY

Retorts, Drain-pipes (glazed), Stove-backs, Covings, Chimney-pots, &c.

The attention of builders is particularly called to these fire-brick stove-backs and covings for forming Kennard and other stoves in an economical manner.

PARIAN CEMENT, for internal Stucco, instead of PLASTER OF PARIS, may be painted and papered within twenty hours of its application on the bare walls; and rooms may be rendered habitable by its use before the materials commonly adopted would begin to dry. It is worked without the slightest difficulty. A finer quality is also prepared for ornamental plastering, for encaustic painting, &c. &c. Specimens of which may be seen at the Manufactory of the Patentees, CHAS. FRANCIS and SONS, Cement Works, Nine Elms, London.

WARWICKSHIRE and IMPROVED LIAS CEMENT.—To Architects, Engineers, Contractors, and Builders.—Lias Lime and Cement manufactured by R. GREAVES, at his works Southam and Stratford-on-Avon, can be had in London, or delivered to any part of the country, at less price than Roman cement and 60 per cent. under Portland. These cements for stucco are indestructible, of a warm stone colour, the "Warwickshire" resembling Caen and the "Improved" a dark tint of Bath stone, and only require to be seen by the profession and trade to convince them of their superiority, of which, out of numerous others, the mansions built by G. W. Mayhew, Esq., and J. Elger, Esq., opposite the Prince's-gate, Kensington, will be a sufficient reference. For concrete, ground lias is the best hydraulic lime known, and will become as hard as stone under water. Used, say 1 to 9, it is cheaper than common chalk lime; for example, say—

1-8 ground lias lime,	100 bushels ballast;	cost of lime,	9s. 6d.
1-5 do. chalk	100 ditto	ditto	12s. 0d.
1-12 Portland cement	100 ditto	cost of cement,	16s. 0d.

The river-wall lately constructed at Ironsgate-wharf, under the superintendence of G. Aitchison, Esq., only requires inspection to prove its advantages for water-work. Agents, Messrs. RUTTY and VEREY, 2, South Wharf, Paddington.

TO THE BUILDING PUBLIC.

FIRST-RATE ORNAMENTS in PORTLAND, ROMAN and other CEMENTS, and PLASTER of PARIS, at reasonable prices, consisting of Vases, Balusters, Capitals, perforated Panellings, Cantilevers, Brackets, Trusses, Wreaths, Scrolls, Masques, Heads, Figures, Friezes, Gothic and other Chimney-Shafts, Soffits, Bed-moulds, Paterae, &c., &c. Centre Flowers from 10 feet diameter downwards. An assortment of Shop-front Trusses always ready for fixing.—HERBERT and SON, Modellers, &c., 42, Parker-street, Drury-lane.

EMERSON'S PATENT LIQUID CEMENT is ready for use, is simple in its application, and only ONE-EIGHTH the cost of oil paint; for beauty it is pre-eminent over all other materials used on the fronts of houses, giving the exact appearance of FINE CUT STONE; can be used at once on fresh Roman cement or other plastering; is particularly calculated for country houses, villas, or gate entrances that have become soiled or dingy, which can be beautified in any weather, at a trifling cost.—Sold in casks of 1, 2, and 3 cwt., at 8s., 15s. and 21s. each.

PATENT MINERAL PAINT.

Invaluable as a coating for SHIPS' SIDES AND BOTTOMS, all kinds of WOOD or METAL work, roofing felts, leaky roofs, spouts and gutters, doors, sheds, railing, and all kinds of out-door work, and being perfectly waterproof, will preserve their surfaces from atmospheric influence and decay,—requires no preparation, and will dry in a few hours.—Sold in casks, 2 to 30 gallons. Brilliant Black, 2s.; Rich Brown, 2s. 6d. per gallon.

BELL, SEALE, and Co., No. 16, Basing-lane, Cheapside.

TODD'S PATENT METALLIC PROTOXIDE PAINT has been found, after the severest trials, peculiarly efficacious in preserving iron and other metals from oxidation, and cemented surfaces and brickwork from dampness and vegetation. Being free from smell, and without any deleterious properties, it is well adapted for painting the interior of houses, offices, hospitals, and other buildings, which may require to be painted during occupation.—For particulars, apply to D. TODD, Upper Thames-street, London.

PAINTING WITHOUT SMELL; a fact accomplished by the use of the newly-discovered SWEET OIL of TURPENTINE, instead of the deadly abomination called oil or spirits of turpentine. Paint mixed with it is free from smell, is improved in brilliancy of colour, and the baneful properties of the lead being neutralized, does not emit those noxious exhalations which have hitherto been so universally associated with painting. By this really valuable discovery house painting is now converted into a sanitary operation, that may be effected at any season of the year, being productive of health and comfort, without causing the slightest derangement to the domestic economy. Sold by the gallon, cwt., or ton, by every respectable oilman in the kingdom, and at the depot, 1, Bream's-buildings, Chancery-lane, where may be seen, and copies had of, the original certificate of Dr. Serny, a senior member of the College of Chemistry. Sold also in sample bottles, 1s. and 2s. each, bottles included.

PATENT ALKALI COMPANY'S METALLIC PAINTS.

COLOURS—BLACK and PURPLE-BROWN.

These Paints (the products of a patent process) possess extraordinary covering quality, and far surpass all other paints in point of durability and economy, two coats being proved to be more than equal to three of any other description. From their chemical composition, they are pre-eminently adapted for covering iron; also stuccoed or brick buildings, and every kind of woodwork.

They have been exposed on shipping to the action of sea-water, and of the sulphuretted hydrogen so prevalent in sea-ports and tidal harbours, for more than three years, without change. The attention of the shipping interest is particularly directed to the Company's Patent Compound Metallic Black Paint (the only metallic black paint of any value yet produced), which will be found a most valuable and effectual preservative when applied to iron steam-boats and wooden vessels. It also forms a beautiful covering for stoves. No other paint partakes in any degree of the properties which constitute the great value of these metallic paints.

Numerous and most satisfactory testimonials have been forwarded to the Company's office, copies of which may be had of the Secretary or of the agents.

Price, by the Ton, 23l., delivered in London or Liverpool, exclusive of packages. To be obtained exclusively on application to the Secretary, Mr. J. A. WEST, at the offices of the Company, 20, Fenchurch-street, London, or of any of the undermentioned parties, who are the only AGENTS of the Company:—

Messrs. Evans Brothers, London.
Messrs. Matthews and Leonard, Bristol.
Messrs. Evans and Hodgson, Exeter.
Messrs. Clarke and Full, Yarmouth, Norfolk.
Mr. D. Sandeman, Glasgow.
Mr. G. Sandeman, Dundee.
Mr. R. Newby, Bradford, Yorkshire.
Mr. R. S. Farr, Edinburgh.
Mr. W. Bailey, Wolverhampton.
Messrs. Vint and Co., Newcastle-on-Tyne, and Sunderland.
Mr. Robert Oxland, Plymouth.
Mr. Joshua Fox, Tregedna, near Falmouth.

BUILDERS and CARPENTERS' IRON- MONGERY WAREHOUSE, 18, Blandford-street, Manchester-square, leading out of Baker-street, Portman-square. Lists of prices may be obtained on pre-paid application.

JOHN and EDWIN YOUNG, Proprietors.

TO THE OWNERS OF SAW MILLS, PLANTATIONS and Collieries; to Builders, Millwrights, Engineers, &c.

IMPROVED CIRCULAR SAWS, Upright Saws, for timber and deal frames; Patent Tempered Machine Plane Irons, saw files, improved engineers' files; Patent Tempered Machine Knives, and cutters of all descriptions, made on the most scientific and economical principles, by BLAKE and PARKIN, the Meadow Steel Works, Sheffield.

TO BUILDERS and CARPENTERS.—Elliptic Stoves, double backs, 3d. per inch. Registers, 6½d. 7d., 8d. per inch.

Cottage Ranges, with Ovens and Boilers, 3 ft. 2 in. 40s.; 3 ft. 4 in. 42s.; 3 ft. 6 in., 44s.

Self-acting Ranges, with Circular Oven and Back Boiler, best Wrought Bars and Bright Fittings,

3 ft., £2 18s.	3 ft. 6, £3 7s.	4 ft., £3 15s.

Best Patent Cut Clasp.

5d.	6d.	8d.	11d.	1s. 4d.	1s. 10d. per 1,000
3d.	4d.	6d.	8d.	10d.	2½d.

Best Sheet Floor Brads 13s. 6d. per cwt.
Best Town Glue 28s. Do. Scotch, 22s. per cwt.

Best Patent Sash Line.

4s. 3d.	5s.	6s. 6d.	7s. 6d.	10s.	12s. per gross.
1	2	3	4	5	6

At P. R. WILLIAMSON'S IRONMONGERY and STOVE WAREHOUSE, 35, Chiswell-street, Finsbury-square.

Lists of Prices had on application at the Warehouse, or by letter pre-paid, inclosing postage stamp.—Warehouse closes at 7 o'clock.

TO ARCHITECTS, BUILDERS, &c.

HAYWARD, BROTHERS, late R. HENLY and Co., WHOLESALE IRONMONGERS, and Manufacturers of KITCHEN RANGES, STOVES, &c., 196, Blackfriars-road, and 117, Union street, Borough.

Strong Self-acting Kitchen Ranges, with Back Boiler and Oven and Wrought Bars:—

3 ft.	3 ft. 3 in.	3 ft. 6 in.	3 ft. 9 in.	4 ft.
£3.	£3. 10s.	£3. 15s.	£4.	£4. 10s.

Henly's Patent Improved, with back Boiler and Wrought Iron Oven:—

3 ft.	3 ft. 3 in.	3 ft. 6 in.	3 ft. 9 in.	4 ft.
£5.	£5. 15s.	£6. 5s.	£6. 10s.	£7.

Best Register Stoves, at 7d., 8d., and 9d. per inch.
Do. Elliptic do., at 5½d., and 6d. do.

Manufacturer of WOLFASTON'S PATENT REGISTER STOVES, a certain cure for SMOKY CHIMNEYS, and effecting a great saving in fuel. To be seen in use daily.

Orders from the Country, accompanied with a remittance or reference, will meet with prompt attention.

LAP WELDED IRON TUBES.—W. H. RICHARDSON, Jun., and Co., MANUFACTURERS of every description of WROUGHT IRON TUBES for Locomotive and Marine Boilers, Gas, Steam, and other purposes.

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